

AMERICAN

25c

YEARLY IN U.S.

# Cinematographer

THE MAGAZINE OF MOTION PICTURE PHOTOGRAPHY



**THIS ISSUE...**

- Multiple Camera Technique For TV Films
- Tips For Amateurs On Filming A Wedding

**JULY  
1950**



## DU PONT MOTION PICTURE FILM

**CONTRAST** . . . a characteristic of Du Pont "Superior" approved by prominent cinematographers throughout the profession. "Superior" 2 is all-purpose negative rawstock with fine-grained emulsion. It offers extremely wide latitude—the speed required to assure proper exposure with high- or low-key lighting. It's a film of uniform quality. E. I. du Pont de Nemours & Co. (Inc.), Photo Products Department, Wilmington 98, Delaware.

New York • Los Angeles • Chicago



# Filmo



## -PRO...NEW 16mm and 8mm SPLICER

### B&H PROFESSIONAL PORTABLE . . . 35mm-16mm



Straight-arms frame line-out, beam bender, Carboloy-tipped scraper blades...all the outstanding features of the FILMO-PRO Splier (above) have been adapted to 35mm-16mm editing in this new...and portable professional model. Occupies 10 $\frac{1}{4}$ " x 8 $\frac{1}{2}$ " x 4 $\frac{1}{2}$ " of bench space. Weighs only 13 $\frac{1}{4}$  pounds. Write for full details today!

### B&H AUTOMATIC FILM SPLICING MACHINES ARE AVAILABLE IN 7 MODELS TO ACCOMMODATE ANY REQUIREMENT

Anticipating every special need in professional film editing, Bell & Howell provides seven versatile 16mm splicing machines, all fully automatic. Wide are film-strong and inconspicuous...accomplished quickly with minimum effort. B&H Splicing Machines have been standard equipment in film exchanges, laboratories, and studios since 1915. Write for new catalog, outlining your needs.



For amateur or professional, here's a new-type splicer... for 16mm or 8mm... sound or silent... color or black-and-white film. Gives you a film-saving straight cut at the frame line. And lowest visibility. Splice is only .070" wide!

Beautifully compact, the new FILMO-PRO is a versatile, one-operation, semi-automatic machine occupying only 7 $\frac{1}{2}$ " x 11 $\frac{1}{4}$ " x 4 $\frac{1}{2}$ " of bench space, and weighing but five pounds. Will take B&H Heavy-duty 16mm Reelsafe, as shown above.

Innovations on the FILMO-PRO include a Carboloy-tipped scraper... good indefinitely, without resharpening. Blade-holder and support arm are integral parts of the machine. No need to pick up scraper block manually. After current is applied, FILMO-PRO shears both ends of the film and applies mechanical pressure automatically. Heater in the base shortens setting time. After scraping, simply release scraper support. Both hands remain free for winding film and clamping scraper blades.

New FILMO-PRO Splicers are available for shipment now. Write Bell & Howell Company, 7145 McCormick Road, Chicago 45. Branches in New York, Hollywood, and Washington, D. C.

Precision Made by

## Bell & Howell

Since 1907 the Largest Manufacturer of Professional Motion Picture Equipment for Hollywood and the World

AMERICAN

# Cinematographer

THE MAGAZINE OF MOTION PICTURE PHOTOGRAPHY

ARTHUR E. GAVIN, Editor

Technical Editor, RUSSELL HUNG

GLORIA E. KENNEDY, Art Editor

Circulation, MANUELITY DUNN

EDITORIAL ADVISORY BOARD: Fred W. Jackson, A.S.C., John Arnold, A.S.C., Arthur Edson, A.S.C., Lee Garmes, A.S.C., Charles Rickard, A.S.C., Leon Shamroy, A.S.C., Fred Gage, A.S.C., Dr. J. S. Weiner, A.S.C., Dr. L. A. Jones, A.S.C., Dr. C. E. K. Mees, A.S.C., Dr. V. B. Sears, A.S.C., Col. Nathan Levinson

Editorial and Business Office: 1782 N. Orange St., Hollywood 28, Calif.

Telephone: GRAnite 2185

VOL. 31

JULY • 1950

NO. 7

## CONTENTS

### ARTICLES

- CLAR-VUE DEMONSTRATED FOR A.S.C. . . . . 351
- DEEP FOCUS AND LARGER TARGETS—By Lloyd Allen . . . 354
- 15MM. COLOR RELEASE PRINTS FROM 16MM. COLOR ORIGINALS . . . 355
- UNDERSTANDING PHOTOGRAPHY—By J. B. Collins, R. Jr., M.R.E. . . 356
- MULTIPLE CAMERA TECHNIQUE FOR MAKING TV FILMS—By Jerry Fairbanks . 358

### AMATEUR PHOTOGRAPHY

- FINISHING A WEDDING—By Charles Loring . . . . . 361
- FINISHING YOUR FIRST AMATEUR FILM PRODUCTION—By Frederick Feltus . 362

### FEATURES

- HOLLYWOOD BULLETIN BOARD . . . . . 490
- CURRENT ASSIGNMENTS OF A.S.C. MEMBERS . . . . . 498

### ON THE COVER

RAT FENESTRATION, A.S.C. (far right) gave new handle with Jack Yagla and director Gauthier V. Pritch on story-board layout for series of television films produced by United Productions of America for the Ford Motor Company and photographed by Fenestration on one of Hollywood's largest sound stages. Taking light meter reading is gaffer Robert Campbell while grip Bob Welch centers boom into position for a cleanup of the "star"—a shiny new 1950 Ford sedan. Riding boom are (L to R) Jack Whitman, assistant cameramen, and operator Lee Shatt.

AMERICAN CINEMATOPHOTOGRAPHY, established 1920, is published monthly by the A. S. C. Agency, Inc., 1782 N. Orange St., Hollywood 28, Calif. Entered as second class matter Nov. 18, 1937, at the postoffice at Los Angeles, Calif., under act of March 3, 1879. SUBSCRIPTIONS: United States and Pan-American Union, \$1.00 per year, Canada, \$3.00 per year, Foreign, \$4.00. Single copies, 35 cents, back numbers, 50 cents, foreign single copies, 60 cents, back numbers, 40 cents. Advertising rates on application. Copyright 1950 by A. S. C. Agency, Inc. AUSTRALIAN REPRESENTATIVE: MAUST, 179 Elizabeth St., Melbourne.



### AMERICAN SOCIETY OF CINEMATOPHOTOGRAPHERS

FOUNDED January 8, 1919, The American Society of Cinematographers is composed of the leading directors of photography in the Hollywood motion picture studios. Its membership also includes non-resident cinematographers and cinematographers in foreign lands. Membership is by invitation only.

The Society meets regularly once a month at its clubhouse at 1782 North Orange Drive, in the heart of Hollywood. On November 8, 1950, the Society established its monthly publication "American Cinematographer" which is continues to expand and which is now circulated in 45 countries throughout the world.

Dominant aims of the Society are to bring into close confederation and cooperation all leaders in the cinematographic art and science and to strive for pre-eminence in artistic perfection and scientific knowledge of the art.

### OFFICERS AND BOARD OF GOVERNORS

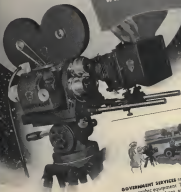
- RAT FENESTRATION, President  
 FRED W. JACKSON, Exec. Vice-President  
 ARTHUR EDSON, First Vice-President  
 HAL MORGAN, Second Vice-President  
 WILLIAM F. SKEILL, Third Vice-President  
 ALFRED L. GILLES, Treasurer  
 JOHN W. BUTLER, Secretary  
 CHARLES RUSHER, Inspector-at-Arms  
 CHARLES CLARKE  
 GEORGE FOLEY  
 LEO GARMES  
 VICTOR MERRILL  
 SOL TOLTS  
 LEON SHAMROY  
 JOSEPH WALKER

### ALTERNATE BOARD MEMBERS

- JOHN JAMON  
 SOL HELPERN  
 MORTON KRASNER  
 ARTHUR MILLER  
 JOHN SEITZ



**Mitchell** \* known 'round the world...  
wherever great 16mm and 35mm films are made



**THE MOTION PICTURE INDUSTRY** relies upon your flawless perfection... it also uses the finest equipment. Mitchell has become the standard equipment of the world's leading studios... films 85% of the motion pictures shown in theatres throughout the world!



**GOVERNMENT SERVICES** use high specifications for photographic equipment. Time after time, precision makes Mitchell 16mm and 35mm products have been selected for purchase by United States and Foreign Governments.



**AMERICAN BUSINESS** needs top quality films to promote sales, educate employees, create good will and employ a better way of American Life Today, more and more of the nation's business leaders specify Mitchell equipment.



...AND FROM MITCHELL'S  
**ENGINEERING LABORATORIES**  
newly developed, precise working photographic equipment will meet every need. Look to Mitchell for the Year's most important contributions in 16mm and 35mm photographic perfection!



**NEWS SERVICES** require fast, versatile photographic equipment for "on the spot" coverage. Working under pressure, in a field where mistakes are expensive, Mitchell has lived up to its reputation for dependability and accuracy.



**TELEVISION** demands adaptable equipment to meet fast changing techniques. Mitchell's professional-grade equipment is now winning new successes and bringing new excitement to the viewing of Television programs and shows.

**Mitchell Camera CORPORATION**

666 WEST HARVARD STREET • GLENDALE 4, CALIFORNIA • CABLE ADDRESS: "MITCAMCO"  
EASTERN REPRESENTATIVE: THEODORE ALTMAN • 321 FIFTH AVENUE • NEW YORK CITY 17 • MURRAY HILL 3-7024



85% of the motion pictures shown in theatres throughout the world are filmed with a Mitchell

# Hollywood Bulletin Board



MILTON KRASNER, A.S.C., winner of Picture Of The Month award for April for photography of Fox's "Three Came Home."

**MILTON KRASNER, A.S.C.**, who won winner of the ASC's "Picture Of The Month" award for May and presented with a commemorative plaque at the Society's monthly dinner-meeting, June 9th. Presentation of plaques also was made to Charles Rosher, A.S.C., winner of award in January for "Red Danube," and absent when original presentation was scheduled, and to Leo Tover, A.S.C., winner of the joint award for March for the photography of "When Willie Comes Marching Home." Ted McCord, A.S.C., who shared the dual March award with Tover for his photography of "Young Man With A Horn," was unable to be present at the awards presentation.

**CHARLES C. CLARKE, A.S.C.**, it was announced just as we went to press, has been nominated for the ASC's "Picture Of The Month" award for May for his photography of "The Big Lift," produced by 20th Century Fox. Clarke, who is presently in France, is expected back in Hollywood in time to receive the award which will be presented at the Society's next monthly meeting, July 17th.

**JOSEPH WALKER, A.S.C.**, is in Washington, D.C., photographing "Born Yesterday" for Columbia Pictures. Augustum marks change of pace for Walker whose previous pictures have been shot mostly

indoors on Columbia sound stages. Present picture is being filmed almost entirely on location, affording no studio sets but shooting necessary interiors in Washington locales with the aid of the most advanced remote lighting techniques.

**KARL STRUSS, A.S.C.**, has been engaged by Charles Laughton to light stage settings for his initial footlight presentation "The Cherry Orchard," at the new Stage Theatre in Los Angeles. Laughton, upon meeting with Struss' skill in lighting motion picture sets, singled him out to apply advanced studio lighting techniques to his new stage production. Struss, incidentally, receives program credit for this assignment.

**GLENN COMSTOCK, A.S.C.**, sailed for Bermuda last month where he is to photograph a documentary in color.

**THINGS** are looking brighter for Hollywood's film animators. The industry reports that more than 25% of the animators formerly engaged in animated cartoon production are now employed turning out animated advertising films for television.

**MICHAEL DOYLE**, 21 years a cameraman in Hollywood, has been appointed Associate Professor at University of California, Department of Cinema Arts.

**TOM TUTWILER, A.S.C.**, has returned to Hollywood following a twelve-week stint photographing exteriors in Texas for RKO's "Jet Pilot."

**MGM's** directors of photography have seen more off-the-job activity during the past two months than for many years. Back at home base are George Folsey, A.S.C., who just completed location filming on "Vengeance Valley" at Canon City, Colorado. Joseph Runnberg, A.S.C., having wound up production and background shooting for "Magnificent Yankee" in Washington, D.C.; Charles Rosher, A.S.C., back from Hawaii and continuing to shoot "Pagan Love Song" on Metro's sound stages; and William Mellor, A.S.C., who was on location filming scenes for "Anson: The Wide Missouri." Hal Rosson, A.S.C., who returned the middle of June from Indianapolis

where he filmed "To Please A Lady," planned out for Kentucky following week to scout locations for MGM's forthcoming "Red Badge of Courage." Alfred Gilks, A.S.C., is shooting exteriors at Sonoma, California, for "Ship Of The Painted Hills." Bob Sargeant, A.S.C., and William Staff, A.S.C. are already grinding out Technicolor footage in Italy for MGM's "Quo Vadis," and the studio is highly enthusiastic over the results shown in first dailies.

**THREE OLD-TIME** Columbia "regulars" were back on the Gower Street studio roster last month. William Sawyer, A.S.C., scheduled to start filming "Flying Fish"; Phil Tannura, A.S.C., directing the photography on "Countess Meets Scotland Yard"; and Joseph Walker, A.S.C., who's photographing Columbia's top-budget production, "Born Yesterday."

**VICTOR MILNER, A.S.C.**, representing the Academy of Motion Picture Arts and Sciences, addressed the National Retail Dry Goods Association mid-year conference held at the Baltimore Hotel in Los Angeles last month.

Five members of the Academy spoke on "Motion Picture Techniques Applicable to Visual Merchandising." In addition to Milner, who outlined the work of the cinematographer and pointed out how motion picture lighting techniques could be applied advantageously in lighting more and window displays, other speakers included Paul Genese, art director; Harry Grace, set decorator; Edith Head, costume design; and Howard G. Mayer, public relations. More than 1800 store representatives from around the nation attended the conference.

**PAUL C. VOGEL, A.S.C.**, and **FRANK F. PLANER, A.S.C.**, have been cited by DuPont in the June-July, 1950, issue of "DuPont Magazine" for their award-winning achievements during 1949 with DuPont motion picture films. Full page story and layout pictured both cinematographers plus clips from their award-winning films. Vogel won "Oscar" this year for photography of MGM's "Battleground." Planer won Globe Award at Hollywood Foreign Correspondents for filming "Champion."

***You will marvel at the  
beauty and fidelity of***

# NEW Ansco Color

***Type 238 16mm duplicating film!***

***Compare...***

*for finer definition.*

***Compare...***

*for denser, whiter whites*

***Compare...***

*for faithful color reproduction*

***Compare...***

*for high-fidelity sound*

***Plus...***

*fast processing service in  
Brighton, Chicago and  
Hollywood.*

**I**T'S here! Ansco now brings you a new, improved color duplicating film with a wealth of new features that invite comparison with any film on the market today.

After months of the most rigorous field testing in film laboratories throughout the country, this new Type 238 16mm Color Duplicating Film is now available, everywhere.

We invite you to compare

this great film yourself. Authorize your laboratory to make up your next order on Type 238. Then compare feature for feature with the duplicating film you're now using. You'll agree that the New Ansco Type 238 is the one color duplicating film you've long been waiting for! **Ansco, Binghamton, New York.** A Division of General Aniline & Film Corporation. *"From Research to Reality."*

# Ansco

At **PRECISION** today  
we're processing the finest  
**INDUSTRIAL FILMS**  
for nationwide showings



For your 16 mm. industrial  
film requirements  
use **Precision** . . .

- Over a decade of 16 mm. industrial film printing in black and white and color.
- Fine grain developing of all negatives and prints.
- Scientific control in sound track processing.
- 100% optically printed tracks.
- Exact timing for exposure correction in black & white or color.
- Soap printing for highest picture quality.
- Special production effects.
- Exclusively designed Maurer equipment.
- Personal service.

...no wonder more and more  
of the best 16 mm. films to-  
day are processed at...

**PRECISION**

FILM LABORATORIES, INC.  
21 West 56th St., New York 19, N. Y.  
JU 2-3970



**CRITICAL AUDIENCE**, among them some of the movie industry's top distillers of photography, were listening to movie of themselves, photographed earlier, some wearing of the A.S.C. clubhouse in Hollywood. Ernst-Bach, Inc., staged event to demonstrate Cine-Voice camera

## Cine-Voice Demonstrated For A.S.C.

**T**HE MEN BEHIND the cameras were shown how they looked before the camera at the June meeting of the American Society of Cinematographers. As a combination equipment demonstration and program innovation, Ernst-Bach, Inc., makers of Auricon cameras and sound equipment, sent technicians and cameramen to the A.S.C. clubhouse with two of the new Auricon Cine-Voice 16mm. single system sound cameras and made movies in sound of the cinematographers.

Camera setups ranged from simple shots picturing groups of A.S.C. men examining Auricon equipment, to scenes of the presentation of Picture of the Month plaques to Charles Rosher, Leo Toner and Milton Krasser by A.S.C. trustee Arthur Edson, acting for presi-

dent Ray Remshan who was absent.

Films were then rushed to the local Cine Craft laboratories for quick processing and returned before close of meeting and screened. The demonstration aptly displayed the potentials of the new, popular priced Cine-Voice sound cameras, introduced earlier this year as a new tool for advanced movie amateurs, television newsmen and film producers, and industrial firms wishing to make their own instructional and promotional films in sound.

The camera, engineered with the same precision and finish that go into its big brothers, the Auricon-Pro and the Auricon 1200 cameras, takes 100 foot rolls of daylight-loading film. Although the standard model is a single-lens job, a

(Continued on Page 147)



**CAMERAMAN** Charles Stuart shoots A.S.C. members with new Cine-Voice camera while they examine Picture of the Month and discuss its merits



**SHOOT** and sound-man Al Brown get set to shoot presentation of "Picture Of The Month" Award to Charles Rosher, Leo Toner and Milton Krasser



# "PROFESSIONAL JUNIOR" Camera Equipment...

Interchangeable - Removable Head Tripods

... the most versatile and dependable camera accessories available for those who prefer the finest.



## FRICITION TYPE

Variable Motor. EK Cine motor with or without external 1500 Revs. motor. Eymo with motor and 100' magazine and all (100' magazine) and interchangeable with the Gear Drive. Also with the Gear Drive. Also with the Gear Drive. Also with the Gear Drive.

## GEAR DRIVE

The best made of any metal magnesium. weight but 5% heavier. Interchangeable and is interchangeable with the Friction type. It handles all types of cameras. Sprocket and gear. Sprocket and gear. Sprocket and gear. Sprocket and gear.

Section Type Head on Standard Tripod Base and Collapsible Adjustable Metal Tripods

## SUNSHADE & FILTER HOLDER COMBINATION

For use with Balco and Cine Special 16mm cameras. Holds two 2" x 3" or 3" x 3" filters and 2 1/2" x 3" round filters. Also holds two 1 1/2" x 3" round filters. Also holds two 1 1/2" x 3" round filters. Also holds two 1 1/2" x 3" round filters.



## BLIMP for EK 16mm. CINE SPECIAL

This Blimp constructed of Dow Metal over-rides. It is designed to afford complete protection against wind, rain, dust, etc. It is designed to afford complete protection against wind, rain, dust, etc. It is designed to afford complete protection against wind, rain, dust, etc.



## SYNCHRONOUS MOTOR DRIVE

110 Volt A.C. Single Phase. 60 Cycles. This motor will run in both directions. It is designed to afford complete protection against wind, rain, dust, etc. It is designed to afford complete protection against wind, rain, dust, etc. It is designed to afford complete protection against wind, rain, dust, etc.



## Small GYRO Tripod

This light weight GYRO Tripod performs with all the efficiency of larger, heavier and costlier tripods now in use.

New, small size GYRO tripod handles all 16mm. professional type cameras: Mitchell 16mm.; Auricon single system; Mauer 16mm.; motor-driven Cine Special; also 35mm. motor-driven Eymo with 400 magazine. It features Super Smooth Pan & Tilt Action.

Positive pre-locking knob. Tilt locking lever. Quick unit action locking knob for leg height adjustments. Two handles can be inserted at 3 different positions on tripod head for operator's convenience or extreme tilt work. Legs are hard maple specially treated and warp resistant. Tripod head is Dow Metal magnesium and aluminum. Built-in spirit level. Swivel No-draw rings. Platform can be equipped for either 1/4 or 3/8 inch camera screw.

— ALSO AVAILABLE —

Entry Tripods • 3 Wheel Portable Bells • Changing Bags • "Hi Hat"

SEND FOR OUR ILLUSTRATED CATALOG

FRANK O. ZUCKER  
**CAMERA EQUIPMENT CO.**  
1600 BROADWAY NEW YORK CITY



FRANK PLANER, A.S.C., explains to producer Stanley Kramer how use of Garutso lens aids production work by eliminating need for many intermediate shots. Extreme depth of focus of lens means possible picking up detail of distance, making setups for change unnecessary. Planer is using lenses in filming Kramer's "Cyrano de Bergerac."

## Deep Focus And Longer Takes

Increased pictorial plasticity achieved with the new Garutso lenses, says Frank Planer who has used them exclusively in photographing three major productions.

By LEIGH ALLEN

WHEN THE GARUTSO lens was introduced to the motion picture industry a year ago by Dr. E. Goulsen, it was recognized as a promising new lens with new pictorial and economic possibilities. It demonstrated in tests remarkable ability to produce exceptional sharp images with greater depth of focus than heretofore obtainable with many conventional lenses, also that it made possible shorter shooting schedules by eliminating need for many intermediate camera setups. Later it was "re-discovered," you might say, by an imaginative and enthusiastic director of photography who explored still further the lens' possibilities. He ultimately proved its full potentialities by photographing with a Garutso lens every scene of a major Hollywood production.

Described at length by R. M. Newbold in the September, 1949, issue of *American Cinematographer*, the Garutso actually is not a new lens line but a conventional cinema lens modified according to the patented Garutso principle. This consists of adding one or more

anterior elements to the lens structure which increase depth of focus and enhance definition and contrast through the resultant reduction of spherical aberration. Lenses thus modified, regardless of make, are termed "Garutso lenses."

Last year several Hollywood directors of photography tested a series of Garutso's ranging in focal length from 25mm. to 550mm., and the resultant shots were spliced together to form a demonstration reel, later screened before members of the American Society of Cinematographers and other technical groups in the motion picture industry.

In the meantime, the Garutso's were attracting attention in other branches of the industry. Screen director Irving Reis, following a showing of the test reel, employed the lenses in producing a series of films for television. And when later he was engaged to direct "Three Husbands" for Gloria Films, one of his first requests was permission to use Garutso lenses in filming the entire picture. He put the problem to Frank Planer, A.S.C., who said then had never seen the lenses

(and had not been present at the test reel screening for his associates at the A.S.C.)

Planer subsequently saw the reel and was at once impressed. With no time to make pre-production tests, he plunged into shooting "Three Husbands" and completed the photography in record time, using a Garutso lens for every shot, with consequent reduction in the number of camera setups necessary.

"Three Husbands" was my basic training," Planer said after winding up the picture, and added: "I expect to do even better with this lens on my next picture."

By now, Planer's success with the lens was attracting attention throughout the industry and he was immediately signed to do two more pictures: "The Dunes," for I. G. Goldsmith, and "Cyrano de Bergerac" for Stanley Kramer, using Garutso lenses exclusively.

Frank Planer is the first director of photography to work extensively with the lenses and to explore their fullest potentialities for major film production. Those who previously had worked with them had been limited both in time and opportunity and therefore did not uncover their full potentials.

"Perhaps the real secret to successful use of the Garutso lens lies in the lighting," said Planer. "One must avoid flat lighting and avoid diffusion. Use of



FIG. 1—Example of great depth achieved with Garutso lens in group shot. Men in FG in these feet from camera, women 6 feet, and men at rear, 15 feet. Filmed at 1:1.2 with a 15mm. Garutso, type on letter is clearly discernible on screen.



115 1.—Another example of great depth of focus achieved with a Garretts lens in foreground at 11 feet from camera; man in distance, about 45 feet. Apertures are from right to left

gauze diffusers nullifies much of the lens' potential."

"The Garretts lens," Pliner continued, "gives additional depth of focus without any hint of exaggeration, and without need for increased illumination. I work with the same key light at all times. When I do use additional light, even if only a slight amount, I am able to work at apertures  $f/2.8$  to  $f/3.5$ , using the same key — and sometimes at  $f/4$  with a  $40mm.$  lens."

"Another important factor is that by gaining this additional depth of focus without need for additional light, the opportunity is widened for greatly increased photographic results in shooting scenes that include process or stereo backgrounds. "The increased depth of focus inherently present makes it possible to obtain greater separation between the players and backgrounds — in other words, the players can be moved forward, away from the backgrounds, thus making it possible to light them to greater advantage and still have the background in focus."

"I think flat lighting results in bad pictures regardless of the lens used, but it is also undesirable with a Garretts. When striving to get separation and modulation in faces and in set architecture, flat lighting defeats the effort."

"There are still other advantages — advantages for the director and for the members of the cast, according to Pliner."

(Continued on Page 217)

## 35mm. Color Release Prints From 16mm. Color Originals

Improved techniques broaden opportunity for theatre release of films made in 16mm. color.

**R**ECENT VENTURES in filming motion pictures in 16mm. color, then blowing them up to 35mm. color for theatrical release have proven sufficiently successful to warrant increased activity in this field. Perhaps the earliest ventures of this kind began during the war when 16mm. Kodachrome shots of battle action in the Pacific and in Alaska were blown up to 35mm. Technicolor for showing in the nation's theatres. About the same time some of the major studios began to acquire 16mm. Kodachrome footage of interesting subject matter from independent cine photographers, which they enlarged to 35mm. color and released as short subjects. The Technicolor sequences in Warner Brothers' "Task Force" were largely made up of 16mm. Kodachrome footage filmed during actual battles in the Pacific. Of the short subjects released during the last two years by three major studios, many originated in 16mm. Kodachrome.

The technique for photographing 16mm. color film for subsequent enlargement to 35mm. color and for the production of such 35mm. release prints continues to advance. Already much of the technical information has been recorded in a popular text book for cinematographers. Jackson J. Ross, A.S.C., has devoted a chapter to the subject in the new, revised edition of his *American Cinematographer Hand Book and Reference Guide*, as follows:

"During the last two years many producers have made feature-length films as well as short subjects on Eastman Kodak's 16mm. Commercial Kodachrome for release in theatres on 35mm. Anso Color. The simplicity of this direct blow-up color print procedure, as developed by Filmreflects of Hollywood, combined with the economy of shooting three-color productions on a low-cost 16mm. original, makes this method

(Continued on Page 217)



IT IS JUST as important to use seasoned technicians in 16mm. color film production as in any other color photography. Here motion cinematographer and A.S.C. member Gil Wiersma is now filming a scene for "The Human Bridge," prepared by August S. Welt for the Red Hook Company, and photographed entirely in 16mm. Commercial Kodachrome.

FIG. 1 — River-camera showing marine under water, using specially-built electronically driven 16-mm camera in submarine housing being compressed air supply, experienced diver can remain at depth of 50 feet for half an hour. Camera has no exterior controls for lens.

FIG. 2 — View of camera housing pictured in use in photo at left. 25 small bolts and weights, in mass of thin steel, "paralysed" and white enamel-plated metal dome of front is covered by six hinged bolts and wing nuts.

## Underwater Photography

Data on exposure, lighting, use of filters and camera handling for underwater cinematography, result of British scientific research.

By J. B. COLLINS, B.Sc., M.B.K.S.

Reprinted from *The Photographic Journal*, Vol. 68, 1954, Courtesy Royal Photographic Society

**R**EQUIREMENTS for underwater photography arise in several widely different branches of marine activity, and range from high speed cinematography for projectile study to still pictures for wreck survey and instruction. Preliminary research into the published works of other investigators showed that photography in anything but very clear water had been dismissed as impossible, and hence all previous work had been restricted to tanks (for the film industry) or to clear water regions, such as the coast of Florida and the Mediterranean. Most of the work done at sea had been in daylight using the bright summer sunlight of these regions, and had been carried out with fixed cameras operated by a helmet diver or from a craft with glass ports below the water line.

Photography under water is comparable to photography through a smogging. Several workers have published data on the transmission of light through various types of sea-water. One such study revealed that oceanic water approached distilled water in clarity and spectral transmissibility, transmitting most light in the blue and green regions of the

spectrum (4,500 to 5,500 Angstrom units); but as the coastal regions are approached, the water transmission drops particularly in the blue region (below 5,000 A-Us), and wave-lengths mostly transmitted lie in the yellow and green regions.

The significance of such spectral transmission data is most appreciated when considering the use of artificial illumination under water. Among other things, it was found that a much greater proportion of the total light energy output from mercury-discharge lamps will be transmitted by sea-water than when tungsten lamp illumination is used. From charts made as a result of these tests, it was noted that the transmission curves drop steeply outside the violet and red ends of the spectrum (4,000 to 5,000 A-Us) indicating that photographic systems employing infra-red or ultra-violet cadences are likely to be of little value.

The photographic work reported here was carried out off Malta, and relates to the range of water transmissions above 50 per cent per half meter. The Malta tests were conducted in 1948 to obtain more precise information on the effect

of the various physical factors involved, and to study the effect of seven of these variables under daylight conditions. The seven variables, in order of importance, were: water clarity, tone of object, angle of sunlight, depth, exposure, film emulsion, and use of polarising filters.

The trials were carried out using a gray-scale target, shown in Fig. 3, painted

(Continued on Page 104)

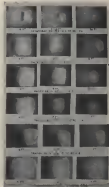


FIG. 3 — Gray scale target under conditions of varying water clarity and range. Photographed at depth of 5 feet, with light from overhead British M.P. 16mm used.

# EASTMAN

PROFESSIONAL  
MOTION PICTURE FILMS

Used with  
Complete Satisfaction  
In All Branches  
of the  
Motion Picture Industry

Distributed by  
The Industry Institution  
of Sales and  
SERVICE

J. E. BRULATOUR, INC.  
Fort Lee      Chicago      Hollywood



FIG. 1—Typical multiple-camera setup for shooting television films in the Jerry Fairbanks' studio in Hollywood. Camera film requirement varies from three to nine different angles, supplying variety of shots for interesting without need for new camera setups for medium and close-up shots. Method speeds production and sets better performance by players.

FIG. 2—Complete mobile camera unit used in multiple-camera photography. Parts A, B, and C show special features: dimmer and switch box, top right, and focusing knob, respectively.



## Multiple-camera Technique For Making TV Films

System permits productions to be photographed in continuous action.

By JERRY FAIRBANKS

Executive Producer, Jerry Fairbanks, Inc.

DEVELOPMENT of a revolutionary new technique of motion picture filming has at last solved the "kinescope" problem which has plagued viewers and sponsors alike since the first "kines" were introduced. The perfection of a multiple-camera technique now makes it possible for television film producers to compete from a budget standpoint with kinescope-recorded shows.

The new technique developed in our research laboratories utilizes three or more Mitchell 16mm cameras which operate simultaneously, filming three or more different angles of a scene and getting long, medium and close-up shots at the same time. (See Fig. 1.) The procedure is similar to the use of multiple cameras in televising "live" video. Heretofore, separate camera set-ups have been used to obtain the same results.

The system, which combines the best advantages of both television and film shooting, permits a picture to be photographed in continuous action including cuts from one camera to another, thus making it possible to film some half-hour programs in as little as 30 minutes.

During the shooting of tests we have found that the new technique promises to cut previous production schedules by

approximately 500 per cent. "Nocturne," a half-hour musical telecast weekly by KNBH in Hollywood, was completely filmed in a little more than three hours.

"Major studio" schedules for the same type of filming would be from 10 days to two weeks. Before the development of

(Continued on Page 244)

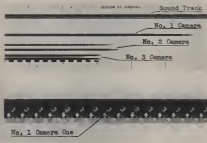
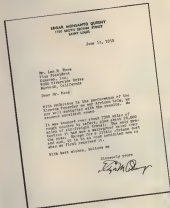


FIG. 3—Key to Fairbanks' system is method of placing sync marks on film and sound track so as to add film shot by No. 1 camera onto single while dot first few frames after camera roll. No. 2 and 3 cameras print two and three shots respectively. On sound track, interval of camera operation is indicated by continuous lines, or break.

# **GOOD AS NEW** after over 27,000 miles through Darkest Africa!

That's the unsolicited testimonial for the KINEVOX RECORDER from Edgar Monsanto Queeny, recently returned from a motion picture and sound recording expedition in Africa.



AGAIN, KINEVOX EQUIPMENT  
DELIVERS EXCELLENT SOUND,  
MAGNETICALLY RECORDED ON  
THE INCOMPARABLE

## **KINEVOX MAGNETIC RECORDER**

Patent Applied For



Jack Chik, sound engineer for Mr. Queeny, shown with Kinevox recorder used on safari in Africa.

## **KINEVOX INCORPORATED** R. C. A. Licensed

MANUFACTURERS OF SYNCHRONOUS MAGNETIC RECORDERS, FILM PHONOGRAPHS,  
AMPLIFIER-MIXERS, MAGNETIC READERS, AND MAGNETIC SOUNDERASERS

Telephone:  
Stanley 7-3871

4000 RIVERSIDE DRIVE  
BURBANK, CALIFORNIA

Cable Address:  
Kinevox - Burbank

NEW YORK \* MEXICO CITY \* ROME \* LONDON



**Destination:  
your  
living  
room!**

Shooting with Ansco Hypan is the one sure way of bringing the whole wide out-of-doors thrillingly close—right into your own living room.

That's because Hypan's extremely fine grain and sparkling contrast give you sharp, crisp images . . . so life-like and real . . . make your movie "takes" look so completely, wonderfully natural.

Add to this Hypan's splendid panchromatic

color balance and pleasing scale of tonal values, whether you shoot indoors or out, and you'll discover why so many amateurs are turning out way-above-average movies.

Load Ansco Hypan in your camera. See your dealer, today. He has Hypan in both 8mm and 16mm rolls.

**Ansco, Binghamton, New York.** A Division of General Aniline & Film Corporation  
"From Research to Reality."

ASK FOR **Ansco** 8 and 16mm HYPAN FILM





AMONG the "must" shots for a wedding record film is the group shot of brides and bridesmaids—best photographed immediately before ceremony or at rehearsal



MORE candid shots can be made at the reception. Remember to include in them scenes like these: the bride and groom with guests and members of both families



AND for a closing scene, a kissing of bride and groom. Newlyweds hold out as they giggle in bliss over their honeymoon—Johnie Norton Lee and Beverly Nelson



INTIMATE candid shots like this are important in a movie record of a wedding. Because illumination is always a problem in shooting scenes in a church or at the reception, your results follow where a Panalux is used attached to camera to furnish illumination

## Filming A Wedding

Some professional angles on how to give wedding movies real "production value."

By CHARLES LORING

THE WEDDING FILM falls into a special category all its own. Far from being the usual "home movie" subject, the nuptial ceremony and attendant events are the most important in the lives of at least the two principals involved, and very significant occasions for their families. Any photographs or motion pictures made on that particular day become treasured mementos which will be viewed and re-viewed many times during the years that follow. For this reason the wedding film deserves careful pre-planning as well as the very best photographic treatment possible.

In every town there is at least one movie cameraman who specializes in making wedding films, and indeed this type of cinematography has become a very profitable sideline for cameramen who do the bulk of their work in other phases of movie-making. The cine cam-

erist with any ability at all can usually do a good job of filming a wedding, provided he has the right equipment and creative imagination.

The planning phase should include scene discussions with the bride's mother, or some other person directly concerned with arrangements for the wedding and reception. The bride and groom (if they can be corralled long enough) should be included in these discussions, so that they will know what is required of them in order to make the filming successful. A list should be made of everything that is to happen—all in proper sequence—and another list should be made of the guests who must, for one reason or another, be included in the scenes. Where the affair is to be a large one and the guests are unknown to the cameraman, it is advisable to have someone close to

(Continued on Page 290)

## Tackling Your First Ambitious Film Production

Try a documentary subject for your first scenario film; it will provide important experience in coordinating story planning with photography.

By FREDERICK FOSTER

**T**HERE COMES A TIME in the life of every amateur movie maker when he wants to break away from the "snap-shooting" routine of making movies of the kids and the family, of vacation and weekend trips, and tackle something more serious in the way of a continuity film—a documentary or perhaps a modest photoplaylet.

Shooting your first motion picture from a prepared script can be a pleasurable and exciting experience. The venture is not fraught with difficulties if you have mastered your camera, know the rudiments of continuity, and have the imagination necessary to visualize your picture in advance and then see it through to completion.

Let us assume you are fairly proficient with your camera. The matter of continuity should not prove a bugaboo if you attend the movies daily regularly and study the mechanics of the pictures you see there. You just can't help acquiring some idea of continuity technique, but

your ability to apply this knowledge to your own picture making will depend on how much thought you give your picture in advance.

Any picture produced from a script requires careful planning—planning of story line, the various camera angles and other photographic treatment, the lighting of interiors, and the titles, if it is to be silent—and then putting those plans down on paper in the form of a shooting script. Actually, you'll get a great big kick out of planning then shooting your first continuity film, for here you will be approaching for the first time the movie making procedure of the professionals. You will be taking another step forward in your experience of making movies that may lead—who knows—to an exciting adventure, perhaps a career.

Because capable acting talent is pretty difficult for the movie amateur to obtain for his films, your first ambitious production will probably fare better if it is

a documentary type of subject rather than a dramatic or comedy effort. Although some documentary films may require the use of actors, the number will be limited as compared to the requirements of a story film.

The shooting script for a documentary film need not be elaborate. In fact, it may be nothing more than a well organized scene list, but the organization of the material in proper sequence, with the scenes broken down into appropriate camera angles, etc., is most important if the best result is to be achieved.

"Live" with the subject a bit before attempting to set it down into sequences and scenes. Absorb the atmosphere of the place or the situation or the personality of the particular person to be portrayed, so that you may actually capture the proper mood. Contrary to some belief, a documentary need not be a coldly reportorial step of coldness; actually, the human touch is much to be desired. To further this effect, be sure to include in your scene list a generous share of reaction shots, because these are the shots that will draw the audience more closely to your subject and further their understanding of what you are attempting to depict with film.

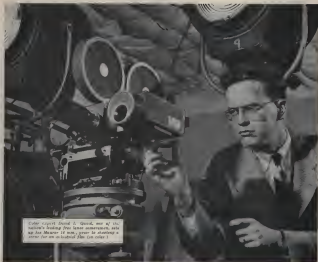
Once the scene list or shooting script has been written, the next step is to line up the various elements of the picture. These include such players as may be necessary, costumes (if any), settings, locations, and properties. Although all this may sound like an ambitious project, it should not be so in making a documentary film, because the very nature of the film implies the recording of a realistic situation that already exists. This means that if the situation is worthy of portrayal in the first place, it is usually quite complete in its makeup and needs only minor additions for the camera.

The matter of actors is something else again. But usually, if people are photographed doing the thing that is their every-day occupation, they will execute it quite naturally and with a minimum of self-consciousness before the camera.

(Continued on Page 252)



SHOOTING your first motion picture from a prepared script can be a pleasurable and exciting experience, even into here mastered your camera and know the rudiments of continuity.



*Cine expert David L. Quaid, one of the nation's leading free lance cameramen, sets up his Maurer 16 mm. prior to shooting a scene for an industrial film (in color).*

## ***Here is Maurer PRECISION...at work!***

David L. Quaid—and dozens of free lance cinematographers like him—know, use and recommend the Maurer 16 mm. camera for the same fundamental reasons:

**In PRECISION** first of all, responsible at all times for the absolutely accurate registration which means perfectly steady pictures, thanks to the exclusive Maurer intermittent movement.

**In FLEXIBILITY AND SIMPLICITY OF OPERATION**, insuring consistently fine performance in every type of production... under all conditions.

**In DEPENDABILITY**, the result of the most rigid standards and advanced engineering skill to be found anywhere in the motion picture industry.

Three all-important reasons why most professional cameramen pick MAURER, the precision camera in the 16 mm. field.

For details on these and other exclusive Maurer features, write:



**The 16 mm. second-on-film portable Recording System**, another example of Maurer precision engineering, combines the highest fidelity in 16 mm. recording practice with wide flexibility and simplicity of operation.

# **J. A. Maurer, Inc.**

37-01 38th Street, Long Island City 1, N.Y.

830 South Robertson Blvd., Los Angeles 35, California

**16mm  
maurer**

CABLE ADDRESS:  
JAMAURER

## PHOTOVOLT SOUND - TRACK and COLOR DENSITOMETER



A photoelectric precision instrument for

- Exact measurement of density on the sound-track of 35 and 16mm. motion picture film.
- Accurate evaluation of sensitive materials.
- Tone analysis on color film.

Simple and Fast in Operation

**\$395.—**

Write for Bulletin #145 to

**PHOTOVOLT CORP.**  
85 Madison Ave., New York 16, N.Y.

## Something New! The S.O.S. Trading Post

Your idle or surplus equipment may bill the bill for another producer or lab. Tell SOS what you've got, whether for rent or sale, and we'll offer it to a receptive customer. NO CHARGE FOR THIS SERVICE.

Send for 1950 Catalog Supplement  
listing hundreds of unusual buys!

AGENTS FOR: Armo Amateurs • Elmo East  
Borden • Edgemoor Developors • Dupon Photos  
• Farnham Station • Jackson Motion Inc. • Mont  
Camera • Rappaport • Smith Viewfinders •  
Calvinson Lites • Radio Service • Hollywood &  
Litho Photos • Zoomer Cine Recorder Lens •  
Searns Tape Recorder.



Many Items  
Available on  
Time Payments

**S.O.S. CINEMA  
SUPPLY CORP.**

Dept. P, 602 West 52nd St., New York 19

## MULTIPLE CAMERA TECHNIQUE

(Continued from Page 23)

our multiple-camera system, we would have planned on a minimum of three days to accomplish the same thing.

In perfecting the new system, we met and surmounted numerous technical problems during 26 months of research and experimentation. Among the foremost of these was the development of a marking device to "sync" picture and sound tracks.

This was necessary because the new system called for cameras to be turned on and off numerous times during the filming of long sustained scenes. The only other alternative was to let all cameras run continuously from the start, necessitating a tremendous waste of expensive negative film.

The problem was overcome by the invention of a device in each camera that leaves a "sync" mark on the action film when the camera is up to speed, identifying the camera. (See Fig. 3.) Also a similar device on the sound recorder exposes a line or lines on the sound film, identifying the cameras in operation throughout the scene. In this manner, the sound film becomes the key to the cutting and inserting of all scenes shot by the different cameras. The marking and "sync" devices are entirely automatic and do not require cameramen to operate additional equipment.

Second of the major problems to be overcome in developing the new system was the perfection of cameras that could follow focus at all times and a viewfinder that would give cameramen the exact stage as the exact focus that was being recorded on film. Equipment was especially built by the Mitchell camera company to our specifications. Finders were coupled with camera lenses so that an adjustment of the finder focus would correct for parallax and camera lens focus. In short, equipment was perfected so that if a scene is in focus on the finder it also is in focus on the film.

These developments were necessary to allow the cameraman to change focus as he moves the camera in and away from subjects or to properly film subjects moving in and away from the camera. As now perfected, the new technique allows the cameraman the same amount of freedom as the video cameraman—a freedom of movement that motion picture cameramen have never before enjoyed. (See Fig. 2.)

The films, cameras are mounted on standard tripods which in turn are mounted on especially made three-wheel dollies that allow the cameraman to move the camera to easily follow the action in any direction. These new type

cameras can operate in any radius or directional line. This equipment does away with the heavy metal dolly tracks and tracking equipment that often necessitated the services of four or five men.

Eyegights have been mounted below the main box on each camera blimp to be used or not as the operator desires. Each eyelight has a control mechanism to regulate the intensity of the light so that it will match the general set lighting. Each camera blimp also is equipped with an action light so that the cast and technicians will know exactly the camera in operation and so that the director will know if the scene is being filmed according to plan. Camera cables, in many instances, are suspended overhead in sets to eliminate as many ground cables as possible.

A radical departure from previous movie methods, the new process required the development of a much faster and more efficient stage operations technique and production system. Heretofore, the method has been to set up a tentative time table of scenes to chart the course of production. This served more or less as a guide to the construction department and set decorators. Players seldom learned their lines more than a day in advance of shooting and usually only for the scenes to be filmed. Camera angles were determined on the spot and rehearsals held while the technical crew stood by. The director was the only one who had knowledge of the master plan. In many instances, he formed only a general plan in his mind, leaving the details until the night before shooting. Technicians and cast members learned about them the day of filming.

Under our new system every detail is completely planned in advance. Sets and decorations for the entire screenplay are constructed and dressed in advance. Cast, which has rehearsed on another stage, is prepared to run through the entire story just as they would for a stage play. All lighting is ready and each and every camera movement planned long in advance on paper. One rehearsal is held on the stage. Its purpose is to give the cameraman the practice of executing what has been planned for them. The entire scene is then filmed, with the three cameras getting the various angles and long, medium and close-up shots. The average scene under our new system runs many times longer than the average scene photographed under the old method. Rarely is the footage under five minutes and seven to eight minutes is the average. In some instances,





U. S. Pat. No. 2,348,881

## GOERZ AMERICAN APOGOR

F2.3

the movie lens with microscopic  
definition successful cameramen  
have been waiting for—

● A new six element high quality lens for the 16 and 35mm film camera. Constructed for all observation of full meaning, giving highest definition in black-and-white and color. Made by skilled technicians with many years of optical training.

● Fitted to produce focusing (zoom) which moves the lens smoothly without jerking elements or shifting image.

● This lens comes in C mount for 35mm cameras fitting in other camera upon special order.

● Lens available now, 35 and 35mm mounted and 35mm, coated.

Write for prices, giving your dealer's name.

**The C.P. GOERZ AMERICAN**

OPTICAL COMPANY

Office and Factory

317 EAST 24 ST., NEW YORK 16, N. Y.  
A.C.T.

**16 MM and 8 MM  
DUPLICATES**  
8 MM COPIES  
OF 16 MM  
16 MM COPIES  
OF 8 MM  
EITHER ONE BLACK & WHITE

**16 MM SOUND  
RECORDING**  
and other services  
to filmmen producers

**35 MM SLIDE  
FILM STRIP SERVICE**

**16 MM  
and  
8 MM  
Motion  
Picture  
Service**

WRITE  
FOR  
PRICES

DIPLA

GEORGE W. COLBURN LABORATORY, Inc.  
124 N. WACKER DRIVE, CHICAGO 4, ILL.

**MOTION PICTURE  
PRINTERS**  
Continued and Reduced  
SEND FOR DISCOUNT LISTINGS

**UHLER Film Machine Co.**  
15778 Wyoming Ave., Detroit 21, Mich.

when a minimum of sets and complicated action is called for, 30 minutes of finished film can be shot in 30 minutes.

Key to the entire stage operation technique is a set of "production scripts" prepared for every technician and player. These script layouts outline in detail every camera movement and cues for cutting in and out of scenes. Each camera is designated with a number and color to identify any particular camera and its position and field of coverage. Cameramen and technicians study their "scripts" in advance just as thoroughly as do the players. When individual cameramen receive layouts covering only their own schedule of operations, the director and cast are given a master "production script" that shows the plan for the three or more cameras. Relative markings in the story script also show the cameras that will be in operation at any particular time in the story continuity.

Lighting of sets always has been an important factor in production time. Average major studio time for standard lighting runs from 30 minutes to more than an hour per set up. Lighting under our new system averages less than five minutes and in many instances there is no loss of production time at all as every set is prelighted. The time-saving factor here added to the time gained by shooting only long, sustained scenes totals a huge saving in cost—a saving we can pass along to the sponsor.

The development of our new lighting technique also required many months of experimentation. The problem was to perfect a means of lighting a set so that no matter where the actors moved the light would be uniform. At the same time, it was necessary to devise a system that would practically eliminate cables from the stage floor. This was a "must" because our system requires the quick and easy movement of camera and sound boom equipment during shooting.

Our main lighting system, as it has been developed, consists of banks of 300-watt reflector lights. These banks are hung so that the tilt and swing adjustment can be made from the floor. This method makes for speed in giving an even, overall illumination of the set, and when properly used, without dark or hot spots.

Back and effect lighting is handled in standard studio procedure with accentuated spotlights mounted on parallels. Once these are adjusted, they remain the same throughout shooting of the particular set. Smaller banks of reflector lights are used on the floor for side lighting. Cables for lamps and all electrical equipment are suspended.

We also use the floor as an aid in our lighting. A very light colored floor cov-

ering suitable to daily use is used to help eliminate dirt, nose, and eye shadows. Where the floor is in the picture in long shots, rugs of course, are used. The combination of this flooring and bank lighting gives an overall modeling that is photographically pleasing. It eliminates the unflattering shadows that live television lighting seems to accentuate. It also does away with the accustomed makeup that is often used in live telecasting.

Sound recording, with the exception of the "sync" tracking system, offered no major problem fortunately. Multiple recorders are used in the filming of long shows, saving the expense and work of developing larger magazines. Regular studio sound equipment, with a few innovations of our own, is used. Additional microphones are spaced overhead out of camera range to obtain complete coverage of the entire set.

Cast rehearsals, without camera and lighting equipment, are held on a non-shooting stage with similar props and furniture available. This prevents the tying up of the main stage and the expensive equipment located there. Here the director works out all his "business" and the cast familiarizes itself with the dialogue and action. While rehearsals are thorough, they are not as demanding as those necessary for a live show which involves working under lights and with cameras.

Our new technique also was perfected for the filming of live programs simultaneously with the actual telecast of the show. Special 1200-foot magazines were developed for our cameras, and Eastman Kodak company prepares special 1200-foot negative film rolls to our specifications for this type of work. Ours is the only motion picture company to date to order film of such length. An intercommunication system has been built so that cameramen can receive instructions in much the same manner as a live video cameraman. This system also is available in its dating filming on our stages, tests, however, have proved that the "production script" method accomplishes excellent results and that earphones are unnecessary during stage shooting.

Quality in all our tests is as good as in any motion picture. Test prints have proved that the system provides fine, superior lighting, sound and clarity of picture than the best kinescopes made to date. We have proved this beyond a question of a doubt several times by alternating in a simple reel footage from one of our tests and footage from a kinescope of the same show. The difference is startling, especially when seen as a closed circuit.

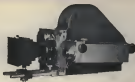
The ultimate aim of kinescope recordings is to obtain a quality comparable to

film. Realization of this goal is still many years away and current kinescoping lenses much to be desired. Even when kinescopes are perfected, they'll not be as acceptable as film, for photographing from a tube of 525 lines is similar to photographing a newspaper cut. Imperfections in the cut (and electronic lines of the tube) always will be transferred to the copy.

This new method of making TV film does away with all the objectionable features of kinescopes and makes it possible for a star to do an entire series in a short period of time, not tying him to a regular weekly schedule. The show can be filmed in Hollywood, Chicago, or New York at a time convenient to the actor and can be released whenever the sponsor desires. Not only is the actor's appearance protected, but so is his performance. Retakes always can be made if necessary. Furthermore, our technique catches all the spontaneity of live video because the players go through the story in much the same way as they would for a stage play.

By pre-planning every move, streamlining stage operations techniques and minimizing waste footage and coverage, shooting time is cut many times below what formerly was thought possible.

## The NORD



### A completely NEW 16mm. Professional Camera

**THE WRAPS ARE OFF!** A new professional 16mm camera with radically new features important in every commercial, educational and scientific film producer. The NORD insures top photographic results under most adverse filming conditions. The result of five years of careful research and development, this camera has all the desirable features you require including:

- New type mechanism for rock-steady pictures plus perfect precision registration as important for multiple exposure work. Movement cannot perforate film, is self-engaging. In closed camera, merely place film in supports, close gate and turn camera over. Feed finger feeds perforations automatically.

- Back-over device of structural weakness. No dovetail. Permanent alignment with no adjustments. Back-over completely sealed in waterproof beam for location use.

- Direct focusing and focusing through the "take-off" lens. No ground glass obscures detail. Gives brilliant exact image of full field, magnified. Focusing microscope for critical examination of image.

- 240° shutter insures lighting economy—two lights do work of three.

- Removable aperture plate insures "whenever-free" frame lines.

- Priced under \$2,500.

Write for Bulletin Giving Complete Description

**THE NORD COMPANY**  
254 FIRST AVENUE, NORTH,  
MINNEAPOLIS, MINN.



**The Trade Mark of research and production  
of equipment for the exacting control of**

## COLOR PHOTOGRAPHY

### OPTIMUS MOTIF

**Precision Optical Viewer  
for use in production of  
motion pictures.**

**PRICE \$97.50**

Containing five viewing lenses which match the five standard lenses used in common picture cameras (28, 30, 40, 50, 75mm), the Optimus Motif provides instant, central viewing of the scene exactly as seen by the camera lens. Positive click stops and the milled ring on the instrument make it simple and easy to use. An optical adjustment is provided to compensate for varying degrees of myopia.



### C T COATED FILTERS



Mounted between specially tinted glass, these Color Temperature Filters are low reflectance coated for maximum light loss and freedom from flare. They are now available in a full range of sizes and a complete set of ten in each or larger color temperature by any desired amount.

### COLOR CONTRAST VIEWING GLASS



This 2 1/2" diameter optical viewing glass, shows the highlights and shadow details of scenes exactly as reproduced on color film. Changing illumination of subjects to be photographed may be made as indicated by the use of this viewing glass.

**PRICE \$2.95 plus excise tax**  
Packaging: Viewing Glass for black and white film—\$3.75 plus excise tax



**DIRECT  
ALL INQUIRIES  
AND ORDERS TO**

### PHOTO RESEARCH CORP.

127-129 W. ALAMEDA AVE. • STANLEY 7-4704  
BURBANK, CALIFORNIA

EASTERN REPRESENTATIVES: CAMERA EQUIPMENT CO., 300 MADISON, NEW YORK 17, N. Y.

## COOGAN SPECIALS!

We are proud to offer, in addition to the items listed below, and in our larger ad on page 170, a complete line of 16mm and 35mm negative and positive stock at a fraction of prevailing market prices.

**REINHADE STRIPPING FLANGE**, 10" diameter with brass hub. **Model** \$4.50

**REINHADE FILM MEASURING MACHINE**, 10mm Model 16, 15" single hub. **Model** \$14.50

**REINHADE COMBINATION FILM SYNCHRONIZING MACHINE**, 15mm and 16mm Model 16, \$15.50

**REINHADE FILM WAXER**, 15mm. **Model** \$17.50

**CONTINUOUS AND STEP PRINTERS**

**DAVIES AUTOMATIC CONTINUOUS COLOR PRINTER**, 15mm continuous. Fully automatic, permitting for both quantity and quality of high speed units on single stand, each head a unit in itself printing up to a total of 1207 per minute. The unit will handle up to 80 seconds of 100' of film any sprocket color film may successfully be printed with this unit. Like new. **Model** \$100.00

**BURCHILL CONTINUOUS PRINTER**, 15mm printer used for continuous contact printing on paper. Unit is in well-contained case with light intensity control. **Model** \$40.00

**STEP PRINTER**, with Geneva movement. **Model** \$15.00

### STUDIO LIGHTS

**STUDIO LAMP**, with large 22" diameter chrome reflector on adjustable collapsible stand. Housing incandescent bulb, complete with cables and sockets in fitted case. **Model** \$35.00

**OTTO & DAUGH CIRCUS**, 3000 watt Magalix 50' foot base 12" spotlight. **Model** \$28.00

**BARDWELL-MAGALIXER STUDIO LIGHTS** with various and film sets. Three fluorescent light heads, each bank holds four fluorescent lamps, banks swing 180°, center bank can be tilted vertically 12". **Model** \$29.00

We also have arc lamps in 40, 80, 100 and 170 Amp high intensity, 5000 watt Magalix 50' foot base and other arc lamps. **Model** \$100.00

### REELS AND CANS

Reel, 16mm x 420 ft.	used	\$1.50
Can, 16mm x 420 ft.	used	\$1.50
Reel, 16mm x 820 ft.	used	\$3.00
Can, 16mm x 820 ft.	used	\$3.00
Reel, 16mm x 1,200 ft.	used	\$4.50
Can, 16mm x 1,200 ft.	used	\$4.50
Reel, 16mm x 1,600 ft.	used	\$7.00
Can, 16mm x 1,600 ft.	used	\$7.00

See Our BIG AD on Page 245.

THE COOGAN COMPANY

3729 So. Chicago • North Hollywood



Make a perfect duplicate every time with your Coe Special!

**AUTOMATIC ATTACHMENT** **\$48.00** Plus Tax

**JOSEPH YOLO** 2148 Santa Monica Blvd. Hollywood, California

## CAMERA DIFFUSION

• Made to Your Specifications

**EDWARD GARVIN**

5078 GREENBUSH AVENUE

HERMAN CAKE, CALIFORNIA

PHONE STATE 4-6412

## CINE-VOICE DEMONSTRATED FOR A.S.C.

(Continued from Page 242)

target front accommodating three lenses may be had at slight additional cost. The sound channel is compact and sufficiently light in weight to allow it to be carried easily along with the camera. For traveling, camera, amplifier, raster, etc., fit into one compact carrying case.

Charles Short, who did the photography on the A.S.C. demonstration reel and Al Brown, who handled the sound demonstrated the ease with which a crew of two can make professional motion pictures with this American equipment. Before a critical audience of the industry's top directors of photography, subsequent screening of the film revealed excellent pictorial results—a steady picture with sharp focus throughout every scene. The sound, from a technical standpoint, was perfect.

Contributing also to the success of this innovation were the Cole-Tran lighting equipment furnished by Tom Hunt, and the fine titles by Telefilm, Inc. One Coast laboratories' fast processing gave many of those present their first demonstration of results of this new film finishing technique, which has made possible the production of speed films for television such as newsreels and racing results.

The Film, titled "American Cinematographers On Parade," will again be screened for A.S.C. members at the Society's July 17th meeting.

## 35mm. COLOR PRINTS FROM 16mm. COLOR ORIGINALS

(Continued from Page 235)

highly attractive to producers who require limited numbers of release prints for their particular markets, and to whom costs are of paramount importance. The overall savings are appreciable compared to the cost of working in any other system three-color medium. Additional charges incidental to photographing in 35mm. three-color, such as raw stock, laboratory processing, shipping and equipment costs, might well determine the difference between profit and loss on some productions.

"Another use for direct blowup theatre prints is for the industrial and documentary film market. As a rule producers in this field work exclusively in black and white, and their films are exhibited to 16mm. non-theatrical audiences. Occasionally, however, there will be a need for a few 35mm. color prints for special "showcase" showings in theatres and large auditoriums. Inasmuch as intermediate film steps are not necessary before the first print can be made, even a single print may be ordered without incurring the usual costly preparation work.

"Filmmakers of Hollywood have found the Arco Color 732 raw stock to be ideally suited to the making of 35mm. three-color theatre prints directly from 16mm. reversal color originals. The 732 stock is exposed in an optical printer, enlarging from the 16mm. color original. The sound is printed from a 35mm. direct-positive sound track and the film is processed and waxed, and is then ready for theatre projection. In this manner, a three-color image can be transferred from a 16mm. original directly

to a 35mm. theatre print in one step. There are no intermediate films involved, no registration problems, and the prints can be made at the rate of thirty to sixty feet per minute.

"For many of the producers using the direct blowup release print process, it is their first attempt at making a film in color. Shooting in 16mm. sometimes can lead to further economy, particularly in the selection of equipment and technical personnel. Such economy is false, and can be quite disastrous when the film must compete in the theatre with original 35mm. pictures. The smaller size and the comparatively low cost of 16mm. film should not lead the producer to believe that other requirements have been reduced proportionately. As in all color processes, the quality of the release print depends a great deal upon the perfection of the original photography. A poorly photographed scene in black and white can often get by because its deficiencies are recorded only in tones of gray. The same scene photographed poorly in color will usually stand out badly as a glaring misrepresentation of reality.

"The cameraman must pay particular attention to lighting contrasts, color values, and exposures. Also, focusing in color causes the problems of makeup, cosplaying and set decoration to grow in importance. All of these arts become increasingly vital factors to be considered in striving for photographically smooth 35mm. color theatre prints.

"Camera and accessories must be selected with great care. Excellent 16mm. professional equipment, with



critically sharp lenses, is now available. This equipment is of standard design and can be used in conjunction with most other existing studio equipment, with little change in operative technique required. Most of the difficulties encountered by cameramen shooting color for the first time arises from insufficient knowledge of the limitations of the particular material they are using. For this reason, it is just as important to train to use seasoned technicians as it is in any other color photography, regardless of the size or type of film used.

Editorial work can be carried out in several ways. If desired, a 16mm. color work print of a black and white reversal work print can be made. For 35mm. producers, perhaps the handiest method would be to use a 35mm. black and white work print, which allows for editorial and dubbing operations to proceed in conventional fashion, utilizing standard equipment. Edge numbers from the 16mm. color original can be transferred to the sound track area of the 35mm. work print during the procedure, making the matching of the original color a comparatively simple job. Great care should be taken in handling the original film, as the slightest abrasions or scratches are greatly magnified in the 35mm. blowup. The best of major studio negative cutting procedures should be prac-

## C. ROSS

FOR

### LIGHTING EQUIPMENT

Inkies and Arc Lamps including Required Accessories  
Generators—Cables—Boards—Boxes

•

Ruby Camera Crane—Dollies—Blimps—Geared Heads

•

### GRIP EQUIPMENT

FOR LOCATION AND STUDIO

Parallels—Steps—Platform Ladders

Century Stands—Reflectors—Flags—Screens

•

SOLE EASTERN MGR. RICHARDSON CO. DISTRIBUTOR

RENTALS • SALES • SERVICE

•

**CHARLES ROSS, Inc.**

333 WEST 32nd STREET

NEW YORK 19, N.Y.

Circle G-5470-1



*The Trade Mark of research and production  
of equipment for the exacting control of*

## COLOR PHOTOGRAPHY

### DENSITOMETER



The P.R.C. Color Densitometer is a precision instrument which will do anything other transmission type densitometers will do, but in addition will measure with equal precision the density at any point in the visible spectrum of color film or any other transparent colored materials. Used by leading color film processing laboratories.



### UNIVERSAL MODEL

The First Direct Color Temperature Meter for instant direct color temperature readings of both natural and artificial light.

### SPECTRA

Color Temperature  
Meters

### PRICE

either model

**\$225.00**

complete with Spectrophotometer,  
handicap and carrying case.



### STUDIO MODEL

The First Color Temperature Meter giving direct readings on Filters and Filter Factors. For use with both 3200° K or 5400° K artificial light color films.



**DIRECT  
ALL INQUIRIES  
AND ORDERS TO**

## PHOTO RESEARCH CORP.

127-129 W. ALAMEDA AVE. • STenley 7-4704  
BURBANK, CALIFORNIA

EASTERN REPRESENTATIVES: CAMERA EQUIPMENT CO., 1000 BROADWAY, NEW YORK 10, N. Y.



## CAMART

### OPTICAL EFFECTS UNIT

For use with motion picture and television cameras.  
Four-surface revolving prism and housing.  
Mounting unit, Double arm and base.

\$99.75

Plus Express Tax

THE CAMERA • MART INC.  
10 West 45th St., New York 19, N. Y.

## NOW AVAILABLE!

- 35mm Variable Area Film Recording Equipment
- 35mm. Re-recorders
- Interlock Systems
- Studio Mixer Consoles
- Synchronous Camera and Projector Drives
- 17 1/2mm Magnetic Film Recorder and Dubbers

QUALITY FILM RECORDING  
EQUIPMENT SINCE 1930

BLUE SEAL SOUND DEVICES  
536 E. 85th St., New York 28, N. Y.

Cable Address: SOUNDFILM

## EYEMO

### SINGLE-LENS CAMERAS

With 2" IES Lens and Case.  
In good operating condition.

\$125.00

CAMERA EQUIPMENT CO.  
1608 Broadway New York 16, N.Y.

## QUALITY 4 & 16 MM REVERSAL PROCESSING

Open  
SUNDAY & DAY  
Even. 10 to 11 PM  
at 1011

EASTMAN BLUE RAY  
AND DUPONT FILMS

Call  
18  
a day

Price-Craft  
1714 REVERSH SHAWARD  
LOS ANGELES 26, CALIF.

ticed in the letter, in order to insure a cleaner, scratch-free original.

"When a great number of lap-dissolves are desired in a release print, the original is generally assembled in A and B rolls (See article on this subject in the April, 1950, issue—page 126.—Editor) This arrangement permits the dissolves to be made each time while printing directly from the camera original. If the optical effects are few or involved, slide sections incorporating the effects can be cut in with the original. Corrections are made semi-automatically, where necessary.

"Thirty-five millimeter Anso Color printing masters can also be made from the theme original for making theatre prints by contact. For this work Anso 735 camera stock is generally used. The color quality of the prints made from such masters, even if the original has been enlarged, is not as satisfactory as those enlarged directly from the original. This, of course, is due to the fact that the print from the master is one generation further away from the original than the direct blowup. However, when a great number of prints are required, there is a saving in cost, which may be worth the color loss to some producers.

"The Anso-Dann optical printer used by Filmaffects of Hollywood in making the Anso Color blowup release prints features a 16mm. projector head equipped with a Bell & Howell type shuttle movement. This movement is fitted with two register pins placed side by side to accommodate double perforated originals, or they can be re-set one above the other for single perforated film. The 35mm. camera head is also of the Bell & Howell type, with a positive-mated aperture and a variable-opening chamber for the making of fades and dissolves.

The light source is a 750-watt projection lamp fitted with a highly efficient condensing system. Provision is made between the lamp house and film for diffusion screens and color-correction filters. Lenses used are the four-inch 1/4-5 Cooke Copying and the four-inch 1/4-8 Eastman Printing Ektar.

"The sound track required for this process must be a 35mm. positive image in negative position, generally obtained by re-recording to a direct positive. The exposed print is then processed by the laboratory, using Anso Color 732 release positive stock. During the processing, the sound track area is sulfide coated to render the unexposed areas of the dye track opaque."

## FILMING A WEDDING

(Continued from Page 44)

the family assigned to him as "technical adviser" to properly identify his cast of characters.

The film will fall naturally into two sequences—the wedding itself, and the reception. Where the church is a pictorially attractive structure, start by making a long shot of it. A similar shot might also make an ideal background for superimposing a title. This scene need not be filmed on the day of the wedding; it can be shot before or after that date, whenever shooting conditions are most ideal. In case the church happens to be an unattractive building, or if it is located in a section of town that is not particularly photogenic, select one attractive feature, such as the doorway, and use it for identification. Or shoot your scene of the church on the day of the wedding so that the festivities themselves can add interest to the scene.

Photography of the wedding ceremony inside the church presents some unique problems, which are often impossible to solve. The main problem, of course, is one of getting enough light on the subject. The average church does not have a great amount of natural light coming through the windows, especially if they

are of stained-glass, but the light level may be sufficient provided fast lenses are used along with a high-speed black and white film. Photographing in color, of course, will demand a great deal more light; also one must always consider the matter of color temperature.

It is the personal feeling of many people that floodlights installed in the church for filming a ceremony detract from the sanctity of the occasion—and indeed this has a lot of truth. But with the new incandescent-type floodlights and reflector-spotlights it is sometimes possible to hide clamp-on lighting units behind pillars, chandeliers, etc., and thus achieve a light level sufficient for photography. Where such units are used to boost the daylight level for color photography, they should have light blue filters in front of them so the color temperature will be consistent with that of daylight.

Where it is possible to conceal lighting units in the church, there still remains the hazard of overloading circuits. Therefore it is wise to check with the maintenance man to determine how heavily fused are the church circuits and how best to use the current available.

This problem can be greatly minimized if one or more of the portable transformers now on the market are used to boost the existing current. In any event, be sure to check all details concerned with lighting before proceeding to set up your lighting units. In this way, you will avoid embarrassment to yourself as well as to the families of the principals.

The sequence at the church should include exterior shots of the guests arriving and chatting with each other prior to entering the church. Be sure to get some shots of the inevitable group of guests awaiting arrival of the bride. It will especially enhance the picture to get some shots of members of the families, starry-eyed with expectancy as they await the beginning of the ceremony.

Let us assume that it is possible to film some scenes of the ceremony inside the church. In such event, set the camera fairly well back from the pulpit, preferably on a balcony or rear choir loft, so that the camera axis will not disturb the ceremony. It is advisable to have at least three lenses of varying focal lengths, so that you can flip from one to the other and thus lend variety of composition to such one-position camera shots. Try to gauge your filming so that you will be able to capture intimate closeups at the most meaningful parts of the ceremony. In order to avoid wasting film on the more routine parts of the ceremony, it is advisable for the cameraman to attend the rehearsal and take notes of the high points.

Very often church windows are so placed that brilliant patches of sunlight will fall upon parts of the interior, while the other areas remain in shadow. Where this is encountered, try to frame your compositions so the underlighted areas are excluded, and so you stay open your lens wide enough to give sufficient exposure for the action itself. Where it is just plain impossible to shoot footage inside the church, try to secure some good still pictures of the ceremony afterward and photograph them later in a trailer.

As soon as sufficient footage of the recessional has been secured, make a quick exit and be prepared to film the action which follows the ceremony. This will include scenes of the principals leaving the church and getting into their cars; the guests talking to each other and to the families of the bride and groom; and occasionally other human-interest scenes which should be included. Special effort should be made to get shots of the families' reactions to this particular moment, as these are the scenes that will be so meaningful in years to come.

The reception is the second important sequence and one which poses its own peculiar problems—namely those of

"Your son is an American Pro Camera has fulfilled my first requirement as he shot scenes on film which... shot five the first 30 seconds... shot 400."

**Norman Killy**  
Business Development Representative  
Baltimore, Baltimore

"I've seen your light house and... shot five the first 30 seconds... shot 400."

**E. Van Cleave**  
Baltimore-Maryland Region

"We have been using American Pro Camera for the past year for shooting... shot five the first 30 seconds... shot 400."

**Don Clayton**  
Baltimore-Maryland Region

**AURICON?**

"We have been using your Auricon Pro Camera for the past year for shooting... shot five the first 30 seconds... shot 400."

**North A. Lapham**  
Baltimore-Maryland Region

"The Auricon Pro Camera has been used in our studio... shot five the first 30 seconds... shot 400."

**Paul S. Sorenson**  
Baltimore-Maryland Region

"We are the greatest of using... shot five the first 30 seconds... shot 400."

**John A. Dand**  
Baltimore-Maryland Region

"After a year of use of the Auricon Pro Camera... shot five the first 30 seconds... shot 400."

**A. R. L. Lapham**  
Baltimore-Maryland Region

"The Auricon Pro Camera has been used in our studio... shot five the first 30 seconds... shot 400."

**George C. Cook**  
Baltimore-Maryland Region

"The Auricon Pro Camera has been used in our studio... shot five the first 30 seconds... shot 400."

**C. M. Killy**  
Baltimore-Maryland Region

"I have been a Auricon Pro Camera and... shot five the first 30 seconds... shot 400."

**M. Killy**  
Baltimore-Maryland Region

"After a year of use of the Auricon Pro Camera... shot five the first 30 seconds... shot 400."

**A. R. Lapham**  
Baltimore-Maryland Region

"I have been a Auricon Pro Camera and... shot five the first 30 seconds... shot 400."

**A. M. Killy**  
Baltimore-Maryland Region

"I have been a Auricon Pro Camera and... shot five the first 30 seconds... shot 400."

**A. M. Killy**  
Baltimore-Maryland Region

"I have been a Auricon Pro Camera and... shot five the first 30 seconds... shot 400."

**A. M. Killy**  
Baltimore-Maryland Region

"I have been a Auricon Pro Camera and... shot five the first 30 seconds... shot 400."

**A. M. Killy**  
Baltimore-Maryland Region

"I have been a Auricon Pro Camera and... shot five the first 30 seconds... shot 400."

**A. M. Killy**  
Baltimore-Maryland Region

"I have been a Auricon Pro Camera and... shot five the first 30 seconds... shot 400."

**A. M. Killy**  
Baltimore-Maryland Region

"I have been a Auricon Pro Camera and... shot five the first 30 seconds... shot 400."

**A. M. Killy**  
Baltimore-Maryland Region

"I have been a Auricon Pro Camera and... shot five the first 30 seconds... shot 400."

**A. M. Killy**  
Baltimore-Maryland Region

"I have been a Auricon Pro Camera and... shot five the first 30 seconds... shot 400."

**A. M. Killy**  
Baltimore-Maryland Region

"I have been a Auricon Pro Camera and... shot five the first 30 seconds... shot 400."

**A. M. Killy**  
Baltimore-Maryland Region

"I have been a Auricon Pro Camera and... shot five the first 30 seconds... shot 400."

**A. M. Killy**  
Baltimore-Maryland Region

Write for YOUR free AURICON Equipment Catalog

BERNDT-BACH, Inc. 7381 Beverly Blvd., Los Angeles 36, Calif.

BERNDT-BACH, Inc. 7381 Beverly Blvd., Los Angeles 36, Calif.

MANUFACTURERS OF SOUND ON FILM RECORDING EQUIPMENT SINCE 1931



## GARUTSO BALANCED LENSES

Revolutionary in Optical Principle

### EXCLUSIVE FEATURES

- EXTREME DEPTH OF FOCUS
- GREATLY ENLARGED DEPRESSION
- INCREASED PICTORIAL PLASTICITY
- REDUCTION OF SPHERICAL DISTORTION
- CORRECTIVE OPTICAL BALANCE
- FULL COVERAGE WITH WIDE ANGLE LENSES

Endorsed and Used by  
Hollywood's Leading Camera-men

— PRODUCTION RENTAL OR TERM LEASE —

**E. GOULDEN, Inc.**

EXCLUSIVE AGENTS for the  
Machon Picture and Television Industries  
5746 Sunset Blvd. HOLLYWOOD 9-7381  
Hollywood 28, Calif

## MOVIOLA

FILM EDITING EQUIPMENT  
TEAM — 35MM.

- FUTURE
- SOUND — Photo and Magnetic
- SYNCHRONIZERS
- REWINDERS

Model LP  
for  
16mm.  
Picture

Write for  
Catalogue

MOVIOLA MANUFACTURING CO.  
1451 Gower St. • Hollywood 28, Calif

## RUBY CAMERA EXCHANGE

Rents . . Sells . . Exchanges

Everything You Need for the  
**PRODUCTION & PROJECTION**  
of Motion Pictures provided  
by a Veteran Organization  
of Specialists

35 mm. . . . . 16 mm.  
Television

IN BUSINESS SINCE 1918

729 Seventh Ave., New York 19, N.Y.  
Cable Address: RUBYCAM

### CORRECTION

In our advertisement of June 23rd of the  
JUNE issue of *The American Cinematographer*,  
the title *Kodachrome* should have been en-  
closed in quotes. We regret this error.  
(The date of the issue is 51-1-10-20)

The CAMERA MART, Inc.  
39 West 43rd St. New York 18, N.Y.

lighting and of keeping the guests from tripping the cameraman and his equipment. The lighting problem can be a real headache if the reception is held in a private home, since there is the matter of current for lamps to consider, as well as the placing of lights in positions where they will not be knocked over or pulled loose from the wall plugs. Here again, it is best to arrange clamp-on units, making sure they and the attached cords do not become a hazard in the presence of the milling throng of joyous people.

As far as subject matter here is concerned, the "must shots" include the reception line with suitable closeups, cutting of the cake, toasting of the bridal bouquet, the kissing of the bride, and various intimate closeups of members of the wedding party. The latter are very important, because as years to come, the bride will surely want to remember with fondness those who were her attendants on the happiest day of her life.

The film should conclude with the inevitable shots of the bride and groom in traveling clothes, leaving on their honeymoon. If the car has been decorated with any special load of trimming, get

several closeup shots. Then you will have to be especially alert to get a number of scenes of the couple leaving, entering the car, and driving off. You will want to capture the happy hysteria of that last minute departure, including the closeups which will add special zest to the sequence.

It is always nice to make up a special set of titles to augment movies of a wedding. These may be printed or hand-lettered on suitable stock, along with sketches, cartoons, or still pictures representative of the affair. If you can make a nice shot of the church a closeup of church bells tolling, or a closeup of the bridal bouquet, superimpose on such scenes titles which have been lettered on a black card and then double-exposed on the original scene.

The wedding film, we repeat, is in a class by itself. Whether you undertake the assignment as a personal favor to a friend, or as a remunerative avocation — remember that it is a very special movie, one that will bring happiness to at least two families and their friends for many years to come.

## TACKLING YOUR FIRST AMBITIOUS FILM PRODUCTION

(Continued from Page 24)

On the other hand, there are some situations the physical requirements of which are such that it takes a fairly competent actor to give a performance that looks casually realistic. In such a case, it is better to draw upon your local "little theater" group or the drama department of local high school or college in order to obtain people accustomed to acting, and who can achieve the result required without need for too much direction.

In the actual filming of the subject, treat your camera treatment to the situation. Until recently, the word "documentary" was used euphemistically to describe poor photography, but there is no reason why a realistic photographic approach must be technically poor. While one would not want an over-glossy camera treatment sugared with backlighting and reflectors, there is no reason why the lighting should be flat and undramatic, or why the camera approach should be devoid of interesting angles. Somewhere between the work-recovered style and the "arty" approach is a happy medium particularly well suited to the treatment of documentary subjects.

Lighting for the documentary film should simulate source wherever possible. Here again, simplicity is the keynote. Simple lighting units such as mushroom-

type reflector photofloods in clamp-on sockets are ideal for shooting interiors. In lighting your sets, establish the key light in terms of the natural source of illumination. For documentary subjects, it is best not to use too much fill light because this tends to subdue the dramatic effect which is achieved with a less balanced light.

Action pictures in the documentary subject should be kept simple and direct, where an actual situation is being re-enacted, rehearsals are advisable so that all awkwardness of movement may be eliminated when time comes to film the scene. Occasionally, it is necessary to film actual situations as they occur. In such cases, a simple style of newsreel technique may be used, provided that a variation of angles is brought into play. Where a camera at the scene would be detracting to the subject, it will be necessary to work from a concealed vantage point. Nearby buildings with windows may be utilized, especially if the camera is equipped with telephoto lenses for securing close-ups. Where the action is, by its very nature, repetitive, film several takes with different lenses, which may be inter-cut for variety.

Editing of the documentary film should be done according to the sequence outline in the script. Here again, reaction shots will do much to draw the

insistence into the mood of the picture, and make the treatment more subjective. Such scenes also serve as cut-aways to cover lapses in time or action. The style of editing will necessarily vary, depending upon whether the film is to be silent with titles, or if sound is to be added later. A more rapid pace of editing may be followed in cutting the sound film, because the main burden of exposition is not thrown solely upon the visual image.

Stable titles for the documentary can be made by super-imposing white lettering over a background scene directly tied in with the subject. Such super-impositions can be made either by double-exposure or double printing. An effective, if not especially original, device is that of beginning the film with the opening scene of action, fading in the titles over it, and then allowing the titles to fade out, so that the scene continues on into the action of the picture itself.

The documentary film offers an interesting challenge to the ambitious amateur cinematographer. It calls for no elaborate equipment or preparation, and the subject matter is unlimited. As the poet said, "The world is full of a number of things," and most of them can be pictured interestingly on film, or sound film by imaginative amateur cinematographers.

#### Historic Movies To Be Collected At George Eastman House

Important productions in the history of motion pictures will be collected and stored at George Eastman House, the international photographic center in Rochester, N.Y. American and foreign movies which trace the development of the motion picture from its beginnings in the early 1890's will be preserved for study by students of film art.

Completion of the Dryden theatre, now under construction at Eastman House, will permit showing of both historical and modern, non-commercial films to students.

The Eastman House collection will be designed primarily for study of the motion picture. It will enable students to:

1—Examine films which constitute major developments in the technique and style of film making.

2—Observe the manner in which changing social problems affected the motion picture.

3—Trace the growth and changing techniques in work by leading directors

4—Refer to newsreels and documentaries as sources in study of specific events, or to obtain authentic details of times and architecture.

5—Compare many versions of identical stories which have been repeated through the years.



## VARIABLE SPEED MOTOR

with TACHOMETER

for

CINE SPECIAL CAMERA  
AND MAURER CAMERA

- 115 V. Universal Motor — AC-DC
- Variable Speed 8-64 Frames
- Separate Base for Cine Special
- Adapter for Maurer Camera

#### Interchangeable Motors

- 12 Volt DC variable Speed 8-64 Frames.
- 115 Volt AC 60 Cycles, Synchronous Motor Single Phase.
- 220 Volt AC 60 Cycles, 3 Phase, Synchronous Motor.



Armature Motors for Cine Special  
Maurer and Mitchell Cameras  
Motors for Sales and Film  
Camera. These Lenses Equipment

National Cine Equipment, Inc.

22 WEST 22nd St.  
NEW YORK 10, N. Y.

## The MART MESSAGE

### THE COLORTRAN STORY

Will tell you how 150 watt bulbs can give you the intensity of a 3000 watt spotlight. Send for illustrated booklet.

GET COLOR RIGHT WITH COLORTRAN LIGHT!

#### Distribution

### CAMART

MIKE 800K, 17-19, with 12" extension arm, 8" height. Floor movement on ball-bearing wheels, rear handle for noise control, 100 lbs. in your car. \$245.00

TEPHO, with narrow beam for Cine-Spec cameras, also wide beam for other types cameras. Lightweight, sturdy, dependable. \$110.00

OFFICIAL IMPACT UNIT, to create effect of four distinct images reflecting in clockwise or counter-clockwise direction. With separate unit, double arm and base, complete \$99.75, plus express fee.

### HALLEN

Just in the 175mm. magnetic field. Meets all professional standards. Synchronous for 16 and 35mm cameras. \$309.00 \$1,350.00

### ARRIFLEX HEADQUARTERS

SALES	REPAIRS	RENTALS
Whole selection of 15mm. Arriflex cameras, 12 with DC motor, two 200 magazine, variable and still holder, 3 lenses. \$175.00 to \$1,495.00	Arriflex blimp and synchronous motor for use in sound productions. \$975.00	Arriflex 400 magazine, new. \$175.00
		Synchronous motor drive and base plate for Arriflex. \$140.00

### PRODUCTION EQUIPMENT

EVANS 118 with 21 lens, completely rebuilt. Fixed in frame. Available from \$175.00 up.

EMIL Conventional 8.15mm printer, 1300 capacity, immediate delivery, problems matched parts. \$110.00

MOVILLA, 35mm. separate sound and separate picture with frame and footage control in incandescent condition. \$210.00

EXP. SOUND READER, 16-35 mm. \$165.00

ARRIFLEX CINE-PRICE single print camera, complete with amplifier, index, headframe, battery, cables, carrying case. \$675.00

ARRIFLEX BLIMP and sync motor for Cine-Special camera, with helical drive adapter and carrying case. See new. \$450.00

Micro Synchronizers, 16-35mm. Combination. Send for 1950 Edition of Mart Message

## THE CAMERA • MART, INC.

70 WEST 45TH STREET  
NEW YORK 19, N. Y.

WORLD-WIDE SERVICE  
CABLE ADDRESS: CAMERMART

## RUBY EDITORIAL SERVICE, INC.

Complete Film Editorial Facilities for  
Motion Picture & Television  
Production

SOUNDPROOF AIR-CONDITIONED  
PRIVATE EDITING ROOMS  
Modern Equipment for

EVERY TECHNICAL REQUIREMENT  
35 & 16mm

RENTALS BY DAY, WEEK  
OR MONTH  
ALL NEW MOVIECAM EQUIPMENT

Equipment Available for  
Off the Premise Rentals

729 - 7th Ave., New York 15, N.Y.  
Tel. Glens 3-8440

## AKELEY CAMERA AND INSTRUMENT CORP.

175 Varick Street

New York 14, New York

—Established 1914—

Designers and manufacturers of silent  
and sound motion picture cameras  
with 225° shutter covering, 1288°  
shutter opening for television use!,  
gyro tripods and precision instruments.  
Complete engineering and machine  
shop facilities for experimental work,  
model and production runs.

INQUIRIES INVITED

## SPARKLING COLOR FOR YOUR PRINTS

Expert tinting by color technician  
plus the careful attention  
accorded your film in our fa-  
mous "personalized service"  
will give you unsurpassed  
prints whose brilliance makes  
them shine on the screen.

Write for Information

Dept. C-11

TELEFILM, INC.

6624 Hollywood Boulevard  
Hollywood 28, California

## PROCESS ALL TYPES OF 16mm—35mm FILM

EDL DEVELOPING  
MACHINES

Live of Over and Details at Request  
EDL CO., MILLER STATION, GAST, TXO

## UNDERWATER PHOTOGRAPHY

(Continued from Page 271)

in seven neutral shades from white through grey to black, and each experiment, under such set conditions, of measured water clarity, consisted of a "run" swimming towards the target with the camera opening continuously from the limiting range of vision up to within one or two feet of the target. Various frames could then be picked out from the negative, corresponding to different distances of the camera from the target, by measuring target stage size on the film; and since the films were processed under commercially controlled conditions, it was possible to measure the target and sea densities in a micro-densitometer and relate the contrast, in terms of density difference, to camera distance.

The next step necessary was to consider what could be chosen as the limiting contrast permissible in the negative for visibility in a photograph. The figure eventually chosen was contrast of 0.2 density difference or ratio of 1.6 to 1, which was found to give reasonably good reproduction. The range at which this limiting contrast was reached could then be plotted as limiting range against the other variables, and the following conclusions were reached:

### (a) Water Clarity

The clarity of the water is the greatest factor in determining the limiting range of photography and even in the clearest water encountered off the coast of Malta, using a white object in summer sunshine in shallow depths, pictures of good contrast are not obtainable at (horizontal) distances of greater than 30 feet. This range is greatly reduced by increasing water turbidity, and the limiting range under the same conditions in Valetta Grand Harbor is reduced to 7 feet. The actual results obtainable under the different conditions of water clarity are illustrated by Fig. 3, which shows the target at different distances from the camera in six different locations. From these results, curves have been plotted enabling the range of limiting visibility of targets of any reflection factor to be predicted in waters of different clarity.

### (b) Tons of Object

It will be seen from Fig. 3 that the white portion of the target is always brighter than the sea background, and the black part always darker, while a fairly dark grey nearly matches the sea in brightness even at very close ranges. The least visible grey tone with direct sunlight was found to have a reflection factor of about 16%. The lighter the object above this value, the more visible it becomes, and also the darker below this value, the more easily visible by

silhouette. With direct sunlight, greater ranges can be obtained with white targets than with black, and it is interesting to note the greater effect of reflection factor at values around 26 per cent, where an increase from 20 per cent to 40 per cent reflection factor may give an increase in range from 7 to 22 feet, while an increase from 40 per cent to 80 per cent will only increase the range from 22 to 31 feet.

### (c) Angle of Sunlight

The effect of tone of an object is entirely dependent on angle of lighting. When viewed looking towards the sun, all parts of the target are darker than the sea against which it is viewed and consequently the black tone becomes more visible, and the white tone less. This gives an indication of a possible way of improving the visibility of dark objects (below 26 per cent reflection factor) although the range obtained is never as great as for a white object directly illuminated by sunlight through the water.

### (d) Depth

Increasing the depth at which photography is carried out, reduces the directional effect of the lighting as well as the intensity of both scattered and reflected light. The effect will vary with water clarity, but one result in very clear water shows a reduction of between 30 per cent and 40 per cent in range on increasing the depth from 6 feet to 40 feet.

### (e) Exposure

In order to be able to estimate the correct exposure under water, a visual exposure meter was constructed. This instrument is a multiple spot type of brightness meter, having illuminated patches of different brightness on a transparent screen, through which the scene can be viewed. The spot most nearly matching in brightness the average brightness of the scene is noted, and the instrument can be calibrated directly in stop numbers for each spot, for a given combination of film emulsion and camera exposure time.

This exposure meter was used throughout the summer trials of 1948 and proved a useful tool for ensuring correct exposure. Reasonable latitude, however, seems to exist in this factor, as the range of contrast in any given scene is usually low, and the negative can be exposed to register such a scene at any point along the straight line portion of the negative characteristic within quite wide limits.

### (f) Film Emulsion

Ilford HP.3 film was mainly used for the trials, and was found very satisfactory on account of its speed and wide working range. Comparative tests were

carried out by filming the target under the same conditions with two other types of film in rapid succession, and comparing the target contrasts and resolution response characteristics when processed under commercially controlled conditions. The results of these tests showed that Ilford recording film (type S.G.22) is slightly faster than HP-3, and when recording low densities can give greater contrast. Where sufficient light is available, the greatest range of visibility is given by Kodak "Background X" film, although this material has severe limitations for this work due to its low speed.

No improvement in contrast has been found under normal conditions by using a polarizing filter over the camera lens, although tests were made by rotating the camera about the optical axis to determine whether there was any critical angle of orientation at which selective absorption of the scattered light took place. The possibility of such a filter being of use with artificial lighting, where the relative positions of light source and camera are more closely controlled, has not however been ruled out.

Work in turbid water has shown that there is no advantage in the use of color filters, but it has since been pointed out that a light blue-cutting filter has been found by some workers to be of value in clearer water, in view of the greater amount of scattered light in the blue region of the spectrum. We have, however, been more concerned with trying to improve the visibility in poor water to approach that in clear water than with improving the latter. One way to do this is to bring the lighting under control.

In turbid waters, the daylight scattered by the large quantity of material in suspension reduces the contrast of the object with its surroundings very greatly, even at a distance of a few feet, and absorption by the particles reduces even the bright Mediterranean sunlight below the limit for photography at 20 or 30 feet. Under these conditions, artificial lighting must satisfy two requirements: it must provide sufficient light to register on the photographic emulsion, and it must be so designed and applied as to bring out the maximum contrast between the object and its surroundings.

Artificial lighting has also its use in clear or fairly clear water where the object, which may be the side or bottom of a wreck, is in very deep shadow, or where a ship's propeller or bottom plates are to be photographed and are thrown into deep shadow by the hull. In all cases where there is still sufficient daylight to affect the film, it is preferable to do the photography at night, when it will be found that, with proper placing of the lights, the contrast can be improved over that obtainable in daytime.

## 110 Volt AC/DC VARIABLE SPEED MOTOR with TACHOMETER for EK Cine Special

Now you can motor drive your Cine Special with confidence.



Furnished complete with rubber-covered cable and plug. Write for complete details.

Tachometer is mounted in clear view of operator. It is calibrated from 16 frames per second to 64 fps, with a definite RED marking for 24 fps. Electrical governor control for adjusting speeds. Sturdy operation at ALL speeds. "OFF-ON" switch built into motor base. No adapters required, except motor coupling which attaches to camera and couples to motor.

Motor shaft equipped with spring steel drive arm which will shear if camera jam occurs. This drive arm is easily replaced.

FRANK J. COOKER  
**CAMERA EQUIPMENT CO.**  
1605 BRADDOCK NEW YORK CITY

## Art Reeves' New Address:

ART REEVES MOTION PICTURE EQUIPMENT  
AND CAMERA SUPPLY COMPANY  
7512 Santa Monica Blvd., Hollywood 46, Calif.

Only Art Reeves Can Sell The New Model

## SENSITESTER

Will Handle Modern Fine Grain Film

## PRECISION "T" STOP LENS CALIBRATION

Transmission calibration of all type of lenses, any focal length, latest method accepted by Motion Picture Industry and Standards Committee of SMPK

Equalizes your lens stop on all focal lengths for proper exposure density by having them "T" Stop calibrated now.

LENSES COATED FOR PHOTOGRAPHY AND SPECIAL TV COATINGS — PROMPT SERVICE

FRANK J. COOKER  
**CAMERA EQUIPMENT CO.**  
1605 BRADDOCK NEW YORK CITY

The equipment developed experimentally for underwater lighting comprises at present 250-watt and 400-watt mercury-vapor and 45-watt sodium-vapor floodlights, using trough reflectors of anodized aluminum. These floodlights can be arranged to cover an area of two or three square feet from a short range, and are equipped with screens to prevent direct lamplight from illuminating the water between the object and the camera.

In addition to these floodlights, a 250-watt mercury-vapor spotlight with a 4-

inch diameter beam of small divergence is available for increasing the illumination on a small detail of the scene, or to enhance contrast by cross-lighting. This spotlight, or the 250-watt floodlight can be operated from a 250-watt portable gas-generator, the sodium-vapor lamp, with a 24-volt battery-driven generator.

NOTE: Mr. Collins' article on Underwater Photography will be continued next month and will describe the design of new cameras for underwater photography, diving technique, and the results obtained.—Editor

# Current Assignments of A.S.C. Members



Major film productions in which members of the American Society of Cinematographers were engaged in shooting at photo-play during the past month

## Columbia

- **WALTER BRIDGES**, "Valentino" (Edward Small Prod.), with Tony D'Amico, Eleanor Parker and Richard Carlson. Lewis Allen, director.
- **IRA MORROW**, "Pygmy Island," with Johnny Weissmuller and Ann Ruggie. William Berke, director.
- **PAUL TAVENNER**, "Cousins," Monte Scotland Prod., with Amanda Blake and Howard St. John. Seymour Franklin, director.
- **LEE GARDNER**, "The Hero" (Sidney Buchs was Executive), with John Derek and Aldo De Re. David Miller, director.
- **JOHN WALKER**, "Born Yesterday," with Randolph Crawford, Judy Holliday, William Holden, and Mildred Mitchell. George Cukor, director.

## Independent

- **REINHOLD HALLER**, "Crestedfort" (Famous Players) with Don DeFore, Andrew King and George Tobias. Boris Ingster, director.
- **JOCK CAMPTON**, "Pandora and The Flying Dutchman" (Lewin-Kassman Prod., shooting in Europe) with James Mason, Ava Gardner, Albert Lewis, director.
- **ROBERT DEGRAND**, "The First Legion" (Leo Prod.) with Charles Boyer, William Desmet, Walter Hampden, Richard Roth, Douglas Sirk, director.
- **MARCEL LITVINCH**, "Amen Sisters" (Protestant Film Corp.) with Colleen Townsend, Regis Toomey, Russell Hicks, Sarah Padden. William Desmet, director.
- **REINHOLD HALLER**, "The Gun" (Phoenix Film) with Lee Cobb, Jane Wyatt, and John Dall. Felix Fein, director.
- **ERICOT LARSEN**, "M" (Superior Film) with David Wayne, Steve Roedy, Glenn Anders and Walter Burke. Joseph Levy, director.
- **FRAN JAKMAN, Jr.**, "The Man With My Face" (Ed Gardner Prod.—Shooting in Puerto Rico) with Betty Nelson, Terry Lee Gorman, Carol Mathews, and John Harvey. Edward Mangrove, director.

## Lippert

- **KARL SMITH**, "The Return of Jesse James," with John Ireland, Ann Dvorak, and Henry Hall. Arthur Hilson, director.
- **BENJAMIN KISS**, "Holiday Echoes" with Mary Beth Hughes, Donald MacBride and Wally Verano. Jack Schell, director.

## M-G-M

- **HARRIS RABIN**, "To Have A Lady," with Clark Gable and Barbara Stanwyck. Clarence Brown, director.
- **CHARLES RABIN**, "Faded Love Song" (Technicolor)—shooting in Havana) with Esther Williams and Howard Keel. Robert Allen, director.
- **PAUL VOGEL**, "Watch the Birdie," with Red Sullivan, Arthur Dall, Ann Miller, Patricia Britton and Leon Ames. Jack Donaghy, director.
- **JOHN ALTON**, "Grounds for Marriage," with Van Johnson, Robert Greyer, George Murphy, and Paul Raymond. Robert Z. Leonard, director.

- **JOSEPH RUTTENBERG**, "It's A Big Country," with Janet Leigh, Gene Kelly and S. Z. Sakall. Charles Value, director.
- **ROBERT BENTON** and **WILLIAM SMALL**, "Our Yaffa" (Shooting in Italy) with Robert Taylor, Deborah Kerr, Mervyn LeRoy, director.
- **RAY JURE**, "Mrs. O'Malley and Mr. Malone," with Margaret Maiz, James Whitmore, Ann Dvorak, Phyllis Kirk, Dorothy Malone, Norman Taurog, director.
- **ALBERT GILLES**, "Ship Of The Pastured Heels" (Technicolor) with Lennie, Paul Kelly, Bruce Cowling, Gary Gray, Harold F. Kress, director.
- **GEORGE POLLEY**, "Fengriffen Valley" (Technicolor) with Bert Lancelotti, Robert Walker, James Don, John Ireland, Sally Forrest. Richard Thorpe, director.

## Monogram

- **WILLIAM SCHENK**, "Rumba And The Hidden City," with John Sheffield and Sue England. Fred Sebe, director.
- **HARRY NATHAN**, "Mademoiselle Silver," with Wanda Walms, Andy Clyde and Virginia Henrich. Wallace Fox, director.
- **WILLIAM SCHENK**, "Tall Timber," with Ruddy McDowell, Jeff Donnell, Lena Thomas and Lyle Thomas. Jean Yarbrough, director.

## Paramount

- **GEORGE BARBER**, "Mr. And Mrs. Anonymous," with Joan Fontaine, Ray Milland, and Teresa Wright. George Seaton, director.
- **CHARLES LAW**, "A Reluctant Stranger," with George Thrayer, John Lund, and Milton Haplan. Mitchell Leiser, director.
- **RAY BENHARRE**, "The Great Missouri Raid," (Not Half Prod.—In Technicolor) with Wendell Corey, MacDonald Carey, Ward Bond and Ellen Drew. Gordon Douglas, director.
- **W. HENRY GEORGE**, "Gasho," (LeMay Templeton Prod.) with John Barrymore, Jr., George Colbert, Fritz Kauder, Barbara Ruth. George Templeton, director.

## R.K.O.

- **J. ROY HUNT**, "No Great Patrol" with Tim Holt, Richard Martin, Jane Hugh Leno. Sealand, director.
- **NICK MENARA**, "The Man He Feared," with Elliott Reid. William Cameron Menzies, director.
- **JOSEPH BRON**, "Cry Danger!" (Olympic Prod.) with Dick Powell, Rhonda Fleming, and Ralph Tomney. Richard Purnell, director.
- **FRANK REIDMAN**, "Crack Down," with Bill Williams, Robert Armstrong, Frank McHugh, Lee Remick, director.

## Republic

- **ANDREW STOTT**, "Big Brann," with John Wayne, Margaret O'Brien, Ben Johnson, Claude Jarman, Jr., Chet With, John Ford, director.

## 20th Century-Fox

- **CHARLES G. CLARKE**, "TE-EE-EE" (Technicolor) with Jane Haver, William Ladd-

den, Harry James, Gloria de Haven and Dennis Day. Richard Sale, director.

• **HARRY JACKSON**, "American Guerrillas In The Philippines" (Technicolor)—shooting in the Philippines) with Tyrone Power, Mackenzie Proff, Tom Erroll, Jack Elam and Tommy Cost. Fred Lang, director.

• **MILTON KRASNER**, "All About Eve," with Bette Davis, Anne Baxter, Celeste Holm and George Sanders. Joseph Mankiewicz, director.

• **WILSON HOBBS**, "The Halls Of Montezuma" (Technicolor)—shooting in Mexico) with Richard Widmark, Reginald Gardino, Slip Hensley. Lewis Milsom, director.

• **EDWARD CRONIN**, "I'd Climb The Highest Mountain" (Technicolor) with Susan Hayward, Wm. Lundgren, Barry Calhoun, Lynn Bari, Ruth Donnelly. Henry King, director.

• **JOE McDONALD**, "Fourteen Hours" with Paul Douglas, Richard Barthelme, Deborah Paget, Jeff Corey, Agnes Moorhead. Henry Hathaway, director.

• **JOSEPH LAFRANCO**, "The Jockey" with James Stewart, Patricia Medina, Alan Mowbray, James Cagney, Marsha Hunt. Walter Lang, director.

• **LEE YOUNG**, "Joe Bonomo's Job," with Chiffon White, Joan Bennett, Robert Cummings, Edmund Gwene, and Joan Blondell. George Seaton, director.

## United Artists

• **GUY BEN**, "Sound Of Fury" (Rialto, Sullivan Prod.) with Frank Leeper, Kathleen Ryan, Richard Carlson, Lloyd Bridges and Adelle Jergens. Cyril Endfield, director.

## Universal-International

• **MAURICE GERTMAN**, "Frenchie," with Joel McCrea, Shelly Waters, Paul Kelly, and Elia Lashinsky. Louis King, director.

• **CLYDE STINE**, "The Millionaire," with Donald O'Connor, Jimmy Durante, Piper Laurie and Janet Leigh. George Cukor, director.

• **WILLIAM DAWSON**, "Harvey," with James Stewart, Josephine Hall, Peggy Dow, Charles Drake. Kerry Koster, director.

• **GEORGE KASSNER**, "Abbot And Costello In The Foreign Legion," with Abbott and Costello, Patricia Medina, Walter Catlett and Douglas Dumbrille. Charles Lamont, director.

• **HAI MOER**, "Woman On The Run," (Friday Frodo) with Lee Sheridan, Dwight D. Kraft, Robert Korb, and Frank Jack. Norman Foster, director.

• **REINHOLD MITTY**, "Weeping Willow" (Technicolor) with Sophie McNally, Alvin Smith and Charles Cooper. Reginald LeBorg, director.

• **HARRY FREEDMAN**, "Under The Gun," with Richard Conte, Audrey Totter, and John McIntire. Ted Tullaf, director.

• **IRVING CLARKE**, "Kissin' Rascals," (Technicolor) with Ann Murray, Brian Donlevy, Margaret Chapman, and Scott Brady. Ray Enright, director.

• **CHARLES BORTA**, "Tomb Raider" (Technicolor) with Van Heflin, Yvonne De Carlo, Preston Foster, Jack Oakie, George Skouras, director.

• **REINHOLD MITTY**, "Katie," with Ann Rhy and Mark Stevens. Frederick de Cordova, director.

## Warner Brothers

- **EDDIE HALLER**, "Dallas" (Technicolor)
- **TED MCNEIL**, "Rocky Mountain"
- **SCOTT HICKS**, "The Way Down Story"



## DEEP FOCUS AND LONG TAKES

(Continued from Page 252)

"For one thing," he said, "the Garzuso lens contributes greatly to the 'long-take' technique, enabling the director to obtain takes of greatly sustained action and thereby reducing the number of camera setups. One camera take for 'Three Husbands' ran six script pages in length. This was a scene of a poker game involving six players. Throughout the picture, we did numerous scenes running two and three pages of dialogue in extent.

"Where some diffusion is desired in certain set areas, it is advisable to accomplish this with light and shadow, rather than with diffusion filters. Why do I object so to diffusion? Well, for example, if I have a player in the foreground and a second player full figure in the background, a little diffusion in such a case might be advantageous. But to employ a diffusion filter would adversely affect player in the background. In such a case, I would prefer to keep the filter and induce a measure of diffusion with light and shadow." Using this technique with the Garzuso lens, Flamer said, the person in the background, although subdued to some extent by the lighting, would nevertheless be rendered sharp and distinct, as witness the result in Fig. 2, a scene from "Three Husbands."

"There are marked savings to be gained in production costs due to ability of the deeper focus lens to pick up the smallest facial expression of an entire group of actors without the necessity of shifting camera and lights for individual closeups. All this makes set lighting simpler, too — and less costly. The director can stage much larger scenes, showing the emotions of players to greater advantage, without the necessity of numerous cuts. Irving Riss, who directed 'Three Husbands,' is not exaggerating when he says that we reduced our camera setups at least one-fifth on this picture, using the Garzuso lens. In editing, too, the staging technique made possible by this lens eliminated a great deal of cutting.

"Finally, use of the lens benefits the players. Director Riss found that his players gave a better, more sincere performance in 'long-takes' where the action and dialogue is sustained, uninterrupted by the usual cuts for new camera setups. In 'Three Husbands' I employed a daily shot that followed the players around the set in a continuous take that encompassed eight pages of dialogue. Obviously the players' performances are enhanced by the sustained mood. Jonathan Hale, veteran stage actor who plays an important role in the picture, said use of the

## TRANSMISSION "T" Stop Calibration

DESIGNING AND MANUFACTURING

of Specialized lens mountings and equipment for 16mm & 35mm cameras

Automation Equipment

NOTES by Glen Sponner, Master and Sales Camera

## LENS COATING

John Clements — Edwin Marwood

NATIONAL CINE EQUIPMENT

30 West 22nd St., New York 10, N.Y.

RENTALS — SALES

— SERVICE

Eyemo, Wiscot,

Reil & Perrell, Wall,

Cine Special Cameras

Reisch & Lank

"Sollar" lenses and

others for Motion

Picture Cameras

## EVERYTHING PHOTOGRAPHIC AND CINEMATIC

### FOR PROFESSIONAL AND AMATEUR

The World's Largest Variety of Cameras and Projection Studio and Laboratory Equipment with Latest Improvements as Used in the Hollywood Studios. New and Used. BARGAINS

HOLLYWOOD CAMERA EXCHANGE

1600 Cahuenga Boulevard

HO-3551 • Hollywood, Calif. • Cable Hocomex

## SALES • SERVICE • RENTALS

— 35 mm. • 16 mm. —

## CAMERAS-MOVIOLAS-DOLLYS

Complete Line of Equipment for Production Available for Rental

Mitchell: Standard • Hi-Speed • NC • BNC • 16 mm.

Bell & Howell: Standard • Shiftover • Eyemo

Moscow: 16 mm. Cameras

Moviola: Editing Machines • Synchronizers

SPECIALISTS IN ALL TYPES OF CAMERA REPAIR WORK. LENSES MOUNTED

\*\*\*\*\* SUGGER \*\*\*\*\*  
CAMERA EQUIPMENT CO.  
ONE JACO ABERCROMBIE NEW YORK CITY

new lens changed his entire cinematograph technique. "It's more like the stage," he said, "and results in more sincere performances."

"Having felt my way along, so to speak, filming 'Three Husbands' with this lens, I undertook the later assignment — 'The Dungeon' — in the same exploring mood, for here was a picture of another sort: a low-key mystery drama, quite different from the gay, frivolous 'Three Husbands.' In this picture I gained new experience with the lens, shooting night scenes in daylight with Pan-X film. Obviously, I would use a very heavy 'light effects' filter and shoot with the lens wide open in filming scenes of this nature. Using the Garzuso, I gained an

additional half-stop in exposure, enabling me to add still another filter for additional quality in the night effect shot.

"Now for the first time since inception of motion pictures," Flamer concluded, "we have a lens that produces marked plasticity in composition — a lens that brings cinematography a step nearer the goal of the long-sought three-dimension. Where previously it had been used successfully only for filming small motion pictures and for television purposes, the Garzuso may now be used with confidence by any director of photography for any type production, major or minor, once he familiarizes himself with the lens and its wide range of pictorial possibilities."





## He interprets with light...

• This scene, from the moment of its conception, had dramatic possibilities. But it was the director of photography who made them more than possibilities.

His was the creative skill, the spectacular, interpretive use of light that produced actual drama, vivid, gripping... his the perceptive use of photography that made the scene an intense moment of visual reality.

To get the utmost from his special skill, his creative ability, the director of photography naturally wants a superior film, one on which he can depend, one perfectly suited to the conditions and circumstances under which he's working. That's why he so often prefers Eastman Plas-X for general studio and outdoor use... and why he turns to Eastman Super-XX for use under adverse lighting conditions.

**EASTMAN KODAK COMPANY**

ROCHESTER 4, N. Y.

**J. E. BRULATOUR, INC., DISTRIBUTORS**

**FORT LEE • CHICAGO • HOLLYWOOD**

# The lens MGM prefers...

"Photographs color as you see it"

says **JOHN ARNOLD**, MGM Executive Director of Photography

"Here at MGM we have preferred and used Bell & Howell's Taylor Hobson Cooke lenses for many years—in fact ever since panchromatic and color films imposed much higher demands on the lens. These lenses photograph color as you see it, with crisp, sharp detail even to the very edge of the picture. We find them immensely superior for black-and-white, as well.

"Some of our current releases, such as **BATTLEGROUND, ADAM'S RIB, and FATHER OF THE BRIDE**, are good examples of the superlative photographic quality we obtain with Taylor Hobson Cooke lenses."



## Look at the exclusive advantages this new lens series offers you!

**MINIET CORRECTION** ever developed in any lenses in the known field. Sharpness and contrast are the same for all of the lenses regardless of focal length.

**T-STOP CALIBRATIONS** to give you absolutely uniform exposures at any given T-stop from lens to lens. A brand new development for amateurs!

**UNIFORM-STEP MAGNIFICATION** Same type of focal length series used by Hollywood studios—now adapted for amateur use.

**WIDE SELECTION** A family of seven lenses to choose from. The four shown are now available.



**3-INCH T 2.7 (F/3.6)**  
Bell Super Comat Click stop, focusing mount, fits all C-mount Weston cameras. Flareproof.



**3-INCH T 3.6 (F/14)**  
Taylor Hobson Cooke Dvotal Click stops, focusing mount, fits all standard C-mount. Most cameras also available for B&H map-on mount from camera.



**3.6-INCH T 2.5 (F/2.8)**  
Taylor Hobson Cooke Panchroal Click stops, focusing mount, fits all standard C-mount. Most cameras also available for B&H map-on mount.



**4-INCH T 2.5 (F/2.8)**  
Taylor Hobson Cooke Panchroal. Same features as 3.6-inch lens. Nearly 50% faster than the fastest of other leading 4-inch lenses—40% per cent faster than the slowest!

See these fine new lenses at your dealer's today.

You buy for life when you buy

## Bell & Howell

Chicago 45